



***Study on Mandatory Requirements and  
Voluntary Certifications for Agro-Food  
Exports towards Safe, Fair and  
Sustainable Food Supply Chains in Asia***

Final Report

Ivan Idrovo

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**Iván Idrovo**  
& CONSULTORES ASOCIADOS

# CONTENTS

|   | Page       |
|---|------------|
| <b>EXECUTIVE SUMMARY</b>  | <b>7</b>   |
| <b>1 INTRODUCTION</b>   | <b>25</b>  |
| A. Overall Objectives   | 25         |
| B. Scope and Expected Outputs: Phase 1                                | 25         |
| C. Methodology  | 26         |
| D. Limitations  | 26         |
| <b>2 COMMODITY TRADE PROFILE</b>                                      | <b>27</b>  |
| A. Cacao  | 28         |
| B. Coffee   | 42         |
| C. Coconut  | 55         |
| D. Pangasius  | 58         |
| E. Shrimps  | 60         |
| F. Tuna   | 63         |
| G. Meat products  | 70         |
| <b>3 NATIONAL MANDATORY EXPORT REQUIREMENTS</b>                       | <b>75</b>  |
| A. Philippines  | 78         |
| B. Vietnam  | 89         |
| <b>6 TRADE AGREEMENTS</b>   | <b>97</b>  |
| A. Free Trade Agreements  | 97         |
| B. Generalized System of Preferences (GSP)                            | 101        |
| <b>7 VOLUNTARY SUSTAINABILITY STANDARDS: COMPARISON AND SYNERGIES</b> | <b>105</b> |
| <b>8 COSTS AND BENEFITS OF VSS AND MANDATORY REQUIREMENTS</b>         | <b>155</b> |
| A. Coffee   | 156        |
| B. Seafood  | 165        |
| C. Meat   | 179        |
| D. Coconut  | 179        |
| <b>9 CONCLUSION</b>   | <b>188</b> |
| <b>BIBLIOGRAPHY</b>   | <b>190</b> |
| <b>ANNEXES</b>  | <b>192</b> |
| Annex A: MOST DEMANDED VSS FOR COFFEE, CACAO and COCONUTS             | <b>192</b> |
| Annex B: MOST DEMANDED VSS FOR MEAT                                   | <b>240</b> |
| Annex C: MOST DEMANDED VSS FOR AQUACULTURE                            | <b>280</b> |
| Annex D: MOST DEMANDED VSS FOR TUNA / WILD CAPTURE                    | <b>318</b> |
|   |            |

## LIST OF TABLES

| No. | Title  | Page |
|-----|--|------|
| 1   | Summary Profiles of shortlisted commodities  | 27   |
| 2   | Top 10 Importers of Cocoa Beans, 2014 and 2018   | 29   |
| 3   | MRL for glyphosate and paraquat in cocoa beans   | 33   |
| 4   | Examples of companies with their own codes of conduct  | 35   |
| 5   | Coverage of Major Cocoa VSS, 2017  | 37   |
| 6   | Volume of cocoa beans exported from the Philippines, 2014 and 2018   | 39   |
| 7   | Volume of cocoa beans exported from the Vietnam, 2014 and 2018   | 40   |
| 8   | Volume of chocolates exported from the Vietnam, 2014 and 2018  | 41   |
| 9   | UTZ and Fairtrade certified cacao farms in Vietnam, 2017   | 42   |
| 10  | World Imports of Green Coffee Beans  | 42   |
| 11  | Comparison of MRLs of common pesticides used in coffee between Codex Alimentarius and national standards of European Union, Japan, and the United States | 49   |
| 12  | Coverage of Major Coffee Public VSS, 2017  | 50   |
| 13  | Philippine Coffee Exports, 2014 and 2018   | 53   |
| 14  | Uptake of VSS in the Philippines   | 53   |
| 15  | Top Importers of Vietnamese Coffee Products  | 54   |
| 16  | Uptake of VSS in Vietnam   | 55   |
| 17  | Top Exporters of Coconut Oil in 2018   | 55   |
| 18  | Top Importers of Coconut Oil in 2018   | 55   |
| 19  | Top Exporters and Importers of Desiccated Coconut, 2018  | 56   |
| 20  | Export Volume and Value of Philippine VCO Exports, 2013 to 2017  | 57   |
| 21  | Export Volume and Value of Philippine Coconut Water Exports, 2013 to 2017  | 58   |
| 22  | Volume of certified Pangasius by type of VSS   | 60   |
| 23  | Volume of certified shrimps (aquaculture) by VSS   | 63   |
| 24  | Top Importers and Exporters of Fresh or Chilled Yellowfin, 2018  | 63   |
| 25  | Top Importers and Exporters of Prepared Tuna, 2018   | 64   |
| 26  | List of tuna RFMOs   | 67   |
| 27  | Sustainability Sourcing Commitments  | 69   |
| 28  | Meat Exports from Philippines and Vietnam, 2018  | 71   |
| 29  | Laws that govern meat importation in UAE   | 73   |
| 30  | Export Certificates Requirements for meat exports to Japan   | 75   |
| 31  | Agencies that a company must register with   | 79   |
| 32  | Employee Registration  | 80   |
| 33  | Product/Sector Specific Permits needed to operate  |      |

| No. | Title   | Page |
|-----|---|------|
| 34  | Requirements to secure URN by agency  | 84   |
| 35  | Requirements and Fees for Export Commodity Clearance/Export Permit                                    | 86   |
| 36  | Export related Measures: Coffee and Cocoa Beans   | 92   |
| 37  | Export Related Measures: Meat and Edible Offal  | 93   |
| 38  | Export related Measures: Shrimps  | 94   |
| 39  | Export Related Measures: Tuna   | 94   |
| 40  | Free Trade Agreements Signed and In Force: Philippines, Vietnam, and ASEAN                            | 97   |
| 41  | Labour and Environment Provisions in Free Trade Agreements  | 98   |
| 42  | GSP Programs: Philippines and Vietnam   | 101  |
| 43  | Overview of Major VSS in coffee, cacao, and coconut   | 105  |
| 44  | Major VSS in Meat: Comparison of Principles and Critical Control Points                               | 115  |
| 45  | Overview of Major VSS in meat   | 118  |
| 46  | Major VSS in Meat: Comparison of Principles and Critical Control Points                               | 125  |
| 47  | Overview of major VSS in shrimp and pangasius   | 130  |
| 48  | Major VSS in Shrimp and Pangasius (Aquaculture): Comparison of Principles and Critical Control Points | 142  |
| 49  | Overview of Major VSS in tuna   | 145  |
| 50  | Major VSS in Tuna: Comparison of Principles and Critical Control Points                               | 153  |
| 51  | Profile of Respondents: Certified and Non-Certified Farmers   | 156  |
| 52  | Production Costs and Returns: Certified and Non-Certified Farmers                                     | 158  |
| 53  | Economic Profile of Certified and Non-Certified Farmers   | 159  |
| 54  | Comparison of Average Eco-efficiency between certified and non-certified farms                        | 160  |
| 55  | Comparison of Average Efficiency Indicators between certified and non-certified farms                 | 160  |
| 56  | Comparative Verification Cost among major coffee producing countries                                  | 162  |
| 57  | Comparison of Explicit Input Costs between certified and non-certified farms                          | 163  |
| 58  | External Costs of Coffee  | 164  |
| 59  | Motivations to Adopt Food Standards   | 166  |
| 60  | Reasons for Not Adopting Food Standards   | 167  |
| 61  | Areas of Assessment   | 170  |
| 62  | Principal categories of NTM-related trade obstacles for exporters                                     | 182  |
| 63  | Summary Matrix of Obstacles and Preliminary Recommendations   | 184  |

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## List of Figures

---

| No. | Title  | Page |
|-----|--|------|
| 1   | Mergers and takeovers in the cocoa industry                              | 30   |
| 2   | Market channels for the export of cocoa to European markets              | 32   |
| 3   | Supply – Demand of VSS certified cocoa beans                             | 38   |
| 4   | Percentage of certified cocoa beans used to total bean consumption, 2017 | 39   |
| 5   | Market Channel of Green Coffee Beans                                     | 43   |
| 6   | Supply – Demand of VSS Coffee Beans, 2017 Volume: In thousand MT         | 52   |
| 7   | Top 10 coffee roasters: market share and demand for VSS in 2017          | 52   |
| 8   | Pangasius export sales, Jan to July 2019: Vietnam                        | 59   |
| 9   | Distribution of non-tariff measures that directly address SDGs, by Goal  | 78   |

## Acronyms

|                   |   |
|-------------------|---|
| <b>ASC</b>        | Aquaculture Stewardship Council (                             |
| <b>AP</b>         | Assurance Partner   |
| <b>ASEAN</b>      | Association of Southeast Asian Nations                        |
| <b>BRC</b>        | British Retail Consortium                                     |
| <b>BSCI</b>       | Business Social Compliance Initiative                         |
| <b>CBA</b>        | Conformity Assessment Body                                    |
| <b>CBI</b>        | Centre for the Promotion of Imports from developing countries |
| <b>CBD</b>        | Convention on Biological Diversity                            |
| <b>CITES</b>      | UN Convention on International Trade in Endangered Species    |
| <b>CME</b>        | Coconut Methyl Ester  |
| <b>CNO</b>        | Coconut Oil   |
| <b>CMA</b>        | Cocoa Merchants Association of America                        |
| <b>COSA</b>       | Committee on Sustainability Assessment                        |
| <b>COVL</b>       | Café Outspan Vietnam Limited                                  |
| <b>CSR</b>        | Corporate Social Responsibility                               |
| <b>C-TPAT</b>     | Customs-Trade Partnership Against Terrorism                   |
| <b>CVED</b>       | National Oceanographic and Atmospheric Administration         |
| <b>CoC</b>        | Chain of Custody  |
| <b>CLGG</b>       | Child Labour Cocoa Coordinating Group                         |
| <b>GMRS</b>       | Global Red Meat Standard                                      |
| <b>GMOs</b>       | genetically modified organisms                                |
| <b>GSP</b>        | Generalized System of Preferences                             |
| <b>DA</b>         | Department of Agriculture                                     |
| <b>DCN</b>        | Desiccated Coconut  |
| <b>DTI</b>        | Department of Trade and Industry                              |
| <b>ECC</b>        | Export Commodity Clearance                                    |
| <b>EU</b>         | European Union  |
| <b>FAO</b>        | Food and Agriculture Organization                             |
| <b>FDA</b>        | Food and Drug Administration                                  |
| <b>FOS</b>        | Friend of the Sea   |
| <b>FSSC 22000</b> | Food Safety System Certification 22000                        |
| <b>FTAs</b>       | Free trade agreements   |
| <b>GAA</b>        | Global Aquaculture Alliance                                   |
| <b>FOB</b>        | Free on Board   |
| <b>GAP</b>        | Good Agricultural Practices                                   |
| <b>GBEs</b>       | Grading and Baling Establishments                             |
| <b>GFSI</b>       | Global Food Safety Initiative                                 |
| <b>GHGs</b>       | Greenhouse Gases  |
| <b>GMP</b>        | Good Manufacturing Practices                                  |
| <b>GSP</b>        | Generalized System of Preferences                             |
| <b>HS</b>         | Harmonized System   |
| <b>HACCP</b>      | Hazard Analysis Critical Control Points                       |
| <b>ICCO</b>       | International Cocoa Organization                              |
| <b>IFOAM</b>      | International Federation of Organic Agriculture               |
| <b>IFS</b>        | International Feature Standard                                |

|                |   |
|----------------|---|
| <b>ILO</b>     | International Labour Organization   |
| <b>IPPC</b>    | International Plant Protection Convention                                   |
| <b>ISEAL</b>   | International Social and Environmental Accreditation and Labelling Alliance |
| <b>ISO</b>     | International Organization for Standardization                              |
| <b>ITC</b>     | International Trade Centre  |
| <b>IUU</b>     | Illegal, Unreported and Unregulated   |
| <b>JICA</b>    | Japan International Cooperation Agency                                      |
| <b>KII</b>     | Key Informant Interview   |
| <b>LTO</b>     | License to Operate  |
| <b>MCT</b>     | Medium Chain Triglycerides  |
| <b>MFI</b>     | Microfinance Institution  |
| <b>MRLs</b>    | Maximum Residue Levels  |
| <b>MSC</b>     | Marine Stewardship Council  |
| <b>MT</b>      | Metric Ton  |
| <b>NFA</b>     | National Food Authority   |
| <b>NGOs</b>    | Non-government organizations  |
| <b>NKG</b>     | Neumann Kaffee Gruppe   |
| <b>NOAA</b>    | National Oceanographic and Atmospheric Administration                       |
| <b>PAH</b>     | Polycyclic aromatic hydrocarbons  |
| <b>PCA</b>     | Philippine Coconut Authority  |
| <b>RMA</b>     | Rapid Market Assessment   |
| <b>RFMOs</b>   | Regional Fishing Management Organisations                                   |
| <b>RBDO</b>    | Refined, bleached and deodorized Oil  |
| <b>RP</b>      | Republic of The Philippines   |
| <b>SAN</b>     | Sustainable Agriculture Network   |
| <b>SGDs</b>    | Sustainable Development Goals   |
| <b>SQF</b>     | Safe Quality Food Program   |
| <b>SME</b>     | Small and Medium Enterprises  |
| <b>SMETA</b>   | Sedex Members Ethical Trade Audit   |
| <b>SMIIC</b>   | Standards and Metrology Institute for Islamic Countries                     |
| <b>SPS</b>     | sanitary and phytosanitary  |
| <b>GSP+</b>    | Sustainable Development and Good Governance                                 |
| <b>TBT</b>     | technical barriers to trade   |
| <b>UNCTAD</b>  | United Nations Conference on Trade and Development (UNCTAD)                 |
| <b>UNESCAP</b> | United Nations Economic and Social Commission for Asia and Pacific          |
| <b>UNFCCC</b>  | UN Framework Convention on Climate Change                                   |
| <b>UAE</b>     | United Arab Emirates  |
| <b>USDA</b>    | United States Department of Agriculture                                     |
| <b>VCO</b>     | Virgin Coconut Oil  |
| <b>VCA</b>     | Value Chain Analysis  |
| <b>VSS</b>     | Voluntary Sustainability Standards  |
| <b>WAT</b>     | West African Tall   |
| <b>WCC</b>     | World Coconut Congress  |
| <b>WTO</b>     | World Trade Organization  |
| <b>ZRC</b>     | Zamboanga Research Centre   |

## Executive Summary

The study covers the following agri-food supply chains in the Philippines and Vietnam: cacao, coffee, Pangasius, tuna, shrimp, and meat. The review of mandatory (national and major importing countries) and voluntary sustainability standards (VSS) is focused on three thematic areas: food safety, labour rights and working conditions, and environmental sustainability.

The following are the key tasks and outputs for Phase 1:

- Preliminary mapping of the mandatory and voluntary requirements of the international buyers of the agro-fishery food supply chains of the Philippines and Vietnam through literature review and internet search.
- Key informant interview with the import-export promotion agencies of the originating as well as the importing countries to complete the mapping exercise and understanding their views on the key requirements and the existing issues, as well as get introduction to the key buyers in their respective countries.
- Listing of the key buyers/importers of different typology for the in-depth interview.
- Preliminary analysis of the range of mandatory and voluntary requirements, their cost and benefits, their convergence with the international conventions and guidelines related to food safety, labour rights and working conditions, and environmental sustainability, and the challenges identified.
- Semi-structured questionnaire and design plan for Phase 2

### Overview of Shortlisted Commodities

The table below provides an overview of the shortlisted commodities included in the study with a focus on: a) top importing countries; b) mandatory requirements in top importing countries; c) dominant voluntary sustainability standards; d) actors who make the sustainable sourcing commitments; and e) participation of Philippines and Vietnam in the global value chains.

| Summary Profiles of shortlisted commodities |  |   |  |   |   |                                      |             |
|---|--|---|--|---|---|--------------------------------------|-------------|
| Commodity                                   | Top Importing Countries                | Key Mandatory Requirements in Importing Countries | Dominant VSS   | Dominance of VSS in sourcing decisions                  | Key Actors with Sustainable Sourcing Commitments                            | Participation in Global Value Chains |             |
|   |  |   |  |   |   | Philippines                          | Vietnam     |
| Cocoa                                       | Europe<br>USA<br>Malaysia<br>Indonesia | Food safety                                       | UTZ<br>Rainforest Alliance<br>Fairtrade<br>Organic       | Moderate  | Processors/<br>Grinders<br><br>Chocolate/<br>confectionery<br>manufacturers | Very low                             | Low         |
| Coffee                                      | Europe<br>USA<br>Japan                 | Food safety                                       | 4C<br>Fairtrade<br>Organic<br>Rainforest Alliance<br>UTZ | <b>Moderate</b><br><br>Supply of VSS certified > Demand | Importers/<br>traders<br><br>Roasters/<br>manufacturers                     | Very low                             | <b>High</b> |
| Coconut Oil                                 | Europe<br>USA<br>Malaysia              | Food safety                                       | Rainforest Alliance                                      | Very low  | Importer –<br>Oleochemical –<br>Personal Care                               | High                                 | Very low    |



| Summary Profiles of shortlisted commodities |  |   |  |  |  |                                      |  |
|---|--|---|--|--|--|--------------------------------------|--|
| Commodity                                   | Top Importing Countries                                  | Key Mandatory Requirements in Importing Countries | Dominant VSS   | Dominance of VSS in sourcing decisions | Key Actors with Sustainable Sourcing Commitments           | Participation in Global Value Chains |  |
|   |  |   |  |  |  | Philippines                          | Vietnam  |
|   |  |   |  |  | To date, only chain of Cargill – BASF – Procter and Gamble |                                      |  |
| Desiccated Coconut                          | USA<br>Europe<br>Singapore                               | Food safety                                       | Organic<br>Fairtrade   | Very low                               | Confectionery manufacturers                                | High                                 | Low  |
| Virgin Coconut Oil                          | USA<br>Europe  | Food safety                                       | Organic<br>Fairtrade   | <b>Moderate</b>                        | Retailers<br>Food and persona; care manufacturers          | <b>High</b>                          | Low  |
| Coconut Water                               | USA<br>Europe  | Food safety                                       | Organic<br>Fairtrade   | <b>Moderate</b>                        | Retailers<br>Multinational manufacturers                   | <b>High</b>                          | Low  |
| Pangasius                                   | USA<br>Europe<br>China                                   | Food safety                                       | ASC<br>GlobalGAP<br>GAA-BAP<br>Friends of the Sea<br>Naturland/<br>organic | <b>Moderate</b>                        | Retailers<br>Food service companies                        | Very low                             | <b>High</b>  |
| Shrimp                                      | Europe<br>USA<br>Japan                                   | Food safety                                       | ASC<br>GlobalGAP<br>GAA-BAP<br>Friends of the Sea<br>Naturland/<br>organic | <b>Moderate</b>                        | Retailers<br>Food service companies                        | Low                                  | <b>High</b>  |
| Tuna  | USA<br>Europe<br>Japan                                   | Food safety<br>Environmental standards            | MSC<br>Friends of the Sea  | <b>High</b>                            | Retailers<br>Canners                                       | <b>High</b>                          | <b>Medium</b>  |
| Meat Products                               | China<br>UAE<br>Japan<br><br>For Vietnam and Philippines | Food safety                                       | Halal<br>Organic<br>GlobalGAP  | Halal – UAE<br><br>Generally, very low | Retailers  | Very low                             | Low; medium for pork but currently affected by African Swine Fever |

In commodities with moderate to high dominance of VSS in sourcing decisions as well as medium to high participation of Philippines and Vietnam in the global value chains, it is recommended that findings be further validated via interviews with buyers/key actors in the chain from which sustainable sourcing commitments emanate.

## **Mandatory Export Requirements: Philippines and Vietnam**

The mandatory export requirements in the Philippines and Vietnam consist primarily of sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBT). For accessing most export markets, the requirements are also largely focused on food safety.

The SPS Agreement requires members of the World Trade Organization (WTO) to base their trade-related SPS measures on science. Members such as the Philippines and Vietnam have two main options: (i) conduct a detailed risk assessment in relation to the product and situation they wish to regulate through an SPS measures; and (ii) rely on the international SPS standards set by Codex, World Organization for Animal Health, and the International Plant Protection Convention (IPPC).

The TBT refers to technical regulations and conformity assessment procedures. Testing or certification procedures are examples of TBT.

Below are the key takeaways on the mandatory export requirements:

### Philippines

- a) Export-related regulatory measures are imposed by the Philippines to ensure the entry of products to the importing market and regulate the products leaving the country. Most of the mandatory requirements are related to ensuring sanitary and phytosanitary measures (SPS) and technical barriers to trade (TBT).
- b) The SPS system in the Philippines has the following structure: i) all food products need to be registered either with Food and Drug Administration (FDA) or the agency with regulatory functions on the sector; ii) all exporters and importers need to be licensed with the relevant authorities; and iii) permits are needed for each import and export shipment. Importers and exporters need licenses from different agencies.
- c) The country's food regulations are generally patterned after CODEX Alimentarius Commission guidelines as well as regulations established by the Food and Drug Administration of the United States and other similar regulatory bodies. However, the Philippines has yet to establish the national microbiological standards for food.
- d) The SPS measures protect human health from risks arising from additives, contaminants, toxins or disease-causing organisms in food and drink. To a significant extent, compliance to SPS measures also contributes to promoting the health and safety of farmers and workers especially in relation to use and application of pesticides and other inputs.
- e) Business name registration and business permits are requirements for almost all of the licenses, certifications, and special permits required to export. The Department of Trade and Industry (DTI), Department of the Interior and Local Government (DILG), and Department of Information and Communications Technology (DICT) issued the revised standards in processing business permits and licenses. It prescribes a unified form, processing time (maximum of 2 days), number of procedures (3 steps), and number of signatories (2) for business permits and licensing systems. The registration of businesses and securing permits to operate is done faster and more efficiently in municipalities or cities that have established "business one-stop shops", which house the different local and national government agencies.

- f) There appears to be duplication of requirements (e.g., business permit/registration) in securing export permits, certificates, and the like that could have an impact in terms of cost, time, and complexity arising from overregulation.
- g) Mandatory environmental requirements are more prominent in the meat and fishery sectors and reinforced in requirements for the export commodity clearance and Hazard Analysis Critical Control Points (HACCP) certification/recognition. To some extent, the coconut industry is also subject to environmental regulations (waste discharge, water pollution) especially manufacturers of coconut oil and desiccated coconut but the Philippine Coconut Authority (PCA) generally only requires the License to Operate (LTO) for registration and the commodity clearance.
- h) Mandatory requirements regarding labour and decent work appear to have low direct interaction with trade regulations. The Department of Trade and Industry – Export Marketing Bureau (DTI-EMB) has put compliance with the minimum wage and Social Security System (SSS) laws as requirement for getting the Unique Reference Number (URN) for the Client Profile and Registration System (CPRS). The PEZA has included submission of Corporate Social Responsibility programs and payment to local subcontractors as among the requirements for CPRS application. However, enterprises in the shortlisted commodity subsectors are not located in PEZA. For the zero-rated Value-Added Tax (VAT) accreditation under the Export Development Act, compliance with the minimum wage and SSS laws are also requirements.

#### Vietnam

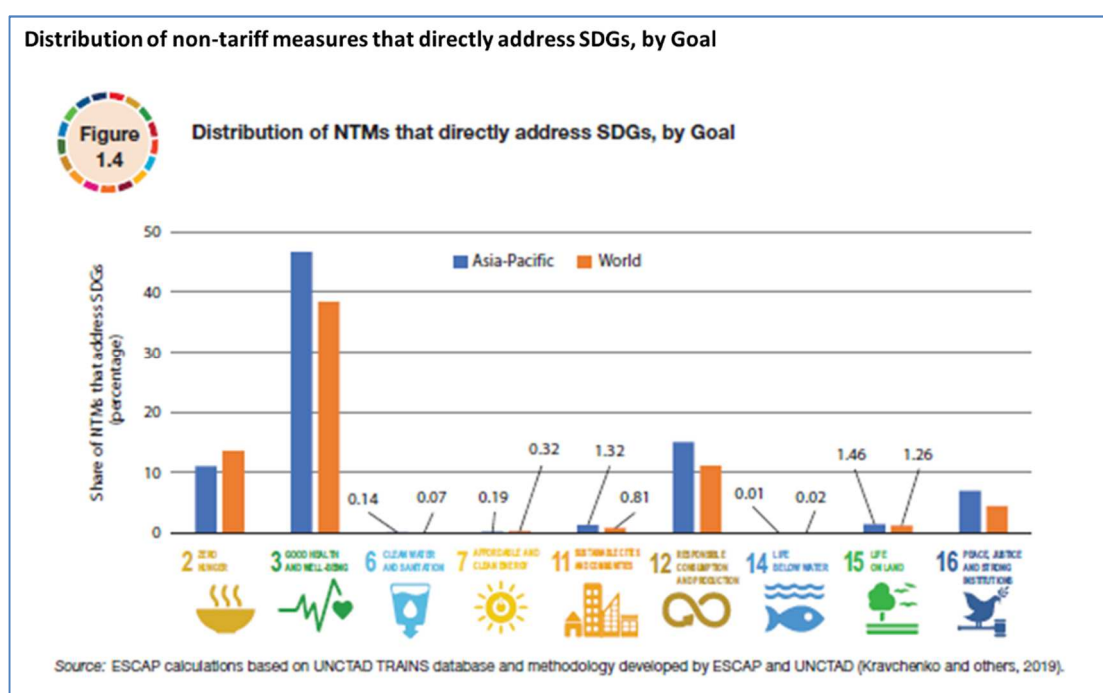
- a) In line with its pursuit to deepen its regional and international economic integration and further liberalize trade, a focal point for SPS matters was established in the Ministry of Agriculture and Rural Development (MARD). Similarly, the Directorate for Standards, Metrology and Quality under the Ministry of Science and Technology (MOST) was named as the focal agency for technical barriers to trade.
- b) Starting in 2014 and continuing to the present, Vietnam has been working towards simplification and/or abolishment of unnecessary regulatory burdens on business activities, including import and export. It also has made significant progress in harmonizing domestic laws with international norms and practices. Some of the key reforms included: (Nguyen, Dinh, Nhan Do, & Vo, August 2019)
  - During the period 2015 -2018, the number of imported and exported goods subject to state management and sectoral inspection was reduced by about 4,400.
  - Enactment of the 2015 Enterprise and Law simplified registration and introduced the following changes: (i) enterprises may freely conduct business not prohibited by law; (ii) enterprises no longer have to list their line of business in their business license registration; (iii) foreign investors and foreign-invested enterprises may establish domestic affiliates, providing they hold under 51% equity; and (4) the number of prohibited sectors for foreign investors was reduced from 51 to 6.
- c) Export-related measures consist mostly of TBT and SPS measures, which are aimed at ensuring the quality of exports, contributing to the enhanced quality and competitiveness of Vietnamese products.
- d) In general, food for export must:
  - Meet food assurance safety conditions

- Conform with food safety regulations of countries of destination as provided in contracts or treaties and international agreements on mutual recognition of results of conformity evaluation signed with concerned countries

Competent Vietnamese state agencies grant certificates of free sale, health certificates, certificates of origin or other certificates for exported food, if so, requested by countries of importation. The Ministry of Health, MARD, and the Ministry of Industry and Trade provide the dossiers and procedures for the grant of certificates in their assigned management domains.

- e) Products that are relatively more integrated in global value chains such as coffee are closer to the international standards than other products.

Overall, non-tariff measures imposed by Philippines and Vietnam generally do not have direct impact on the Sustainable Development Goal (SDG) on decent work. This is more or less consistent with the study conducted by the United Nations Economic and Social Commission for Asia and Pacific (UNESCAP) and United Nations Conference on Trade and Development (UNCTAD) that showed that the top three SDGs addressed by non-tariff measures are Good Health and Wellbeing, Responsible Consumption and Production, and Zero Hunger.



## Trade Agreements

| Free Trade Agreements Signed and In Force: Philippines, Vietnam, and ASEAN |             |                   |                        |
|--|-------------|-------------------|------------------------|
| Free Trade Agreement   | Date Signed | Labour Provisions | Environment Provisions |
| <b>Philippines</b>   |             |                   |                        |
| Japan – Philippines Economic Partnership Agreement                         | 2008        | ✓                 | ✓                      |
| <b>Vietnam</b>   |             |                   |                        |
| Comprehensive and Progressive Agreement for Trans-Pacific Partnership      | 2018        | ✗                 | ✗                      |

| <b>Free Trade Agreements Signed and In Force: Philippines, Vietnam, and ASEAN</b> |                                      |                          |                               |
|---|--------------------------------------|--------------------------|-------------------------------|
| <b>Free Trade Agreement</b>   | <b>Date Signed</b>                   | <b>Labour Provisions</b> | <b>Environment Provisions</b> |
| Eurasian Economic Union-Vietnam Free Trade Agreement                              | 2016                                 | ✓                        | ✓                             |
| Japan-Vietnam Economic Partnership Agreement                                      | 2009                                 | ✗                        | ✗                             |
| Vietnam-Chile Free Trade Agreement  | 2012                                 | ✗                        | ✗                             |
| [Republic of] Korea-Vietnam Free Trade Agreement                                  | 2015                                 | ✗                        | ✗                             |
| Vietnam – EU Free Trade Agreement   | 2019<br>Signed but not yet in effect | ✓                        | ✓                             |
| <b>ASEAN</b>  |                                      |                          |                               |
| ASEAN Free Trade  | 1993                                 | ✗                        | ✗                             |
| Australia – ASEAN – New Zealand Free Trade Agreement                              | 2010                                 | ✓                        | ✓                             |
| ASEAN Hong Kong   | 2019                                 | ✗                        | ✗                             |
| ASEAN-India Comprehensive Economic Cooperation Agreement                          | 2010                                 | ✗                        | ✗                             |
| ASEAN-Japan Comprehensive Economic Partnership                                    | 2008                                 | ✗                        | ✗                             |
| ASEAN-People's Republic of China Comprehensive Economic Cooperation Agreement     | 2005                                 | ✗                        | ✓                             |
| ASEAN- [Republic of] Korea Comprehensive Economic Cooperation Agreement           | 2007                                 | ✗                        | ✗                             |
| Source: Asia Regional Integration Centre database; accessed 1 Dec 2019            |                                      |                          |                               |

Of the fifteen free trade agreements (FTAs) entered into by the Philippines, Vietnam, and ASEAN countries, four have labour provisions while five contained environmental provisions. All agreements with labour and environmental provisions are with the more developed economies. The stipulation of environmental and labour provisions in intra-Asia-Pacific free trade agreements is rare. ASEAN countries generally have separate stand-alone agreements on sustainability issues rather than in a framework of a trade agreement. Similarly, Australia also deals with sustainability issues separate from trade agreements.

In FTAs with labour and environmental provisions except that of the EU-Vietnam FTA, references to environment and labour issues were primarily in terms of cooperation, non-derogation/obligations to uphold environmental and labour laws, and commitments to sustainable development. Agreements generally do not have a concrete framework upon which to monitor the performance of the free trade agreements in advancing or enforcing the labour and environmental provisions.

Among the FTAs, the most comprehensive in terms of coverage of labour and environmental issues is the EU – Vietnam which has been signed but not yet in force. The sustainability provision of the agreement reflects the EU's vision and strategy to link trade and investment with sustainable development. Salient points include: (i) recognition of the beneficial role of decent work; (i) facilitation of trade and investment in environmental goods and services, which are relevant for climate change; (iii) development and participation in voluntary initiatives and regulatory measures to establish high-level labour and environmental protection; and (iv) promotion of corporate social

responsibility. It also involves the harmonization of product standards either to the international level or to the (higher) level of the respective trading partner. (Troster, et al., 2019)

| <b>Generalized System of Preference (GSP) Programs: Philippines and Vietnam</b> |                    |                |                          |                               |
|---|--------------------|----------------|--------------------------|-------------------------------|
| <b>GSP Program</b>  | <b>Philippines</b> | <b>Vietnam</b> | <b>Labour Provisions</b> | <b>Environment Provisions</b> |
| Australia GSP   | ✓                  | ✓              | ✗                        | ✗                             |
| Belarus GSP   | ✓                  | ✓              | ✗                        | ✗                             |
| Canada GSP  | ✓                  | ✓              | ✗                        | ✗                             |
| EU GSP  |                    | ✓              | ✓                        | ✓                             |
| EU GSP+   | ✓                  |                | ✓                        | ✓                             |
| Japan GSP   | ✓                  | ✓              | ✗                        | ✗                             |
| Kazakhstan GSP  | ✓                  | ✓              | ✗                        | ✗                             |
| New Zealand GSP   | ✓                  | ✓              | ✗                        | ✗                             |
| Russian Federation GSP  | ✓                  | ✓              | ✗                        | ✗                             |
| Switzerland GSP   | ✓                  | ✓              | ✗                        | ✗                             |
| Turkey GSP  | ✓                  | ✓              | ✗                        | ✗                             |
| USA GSP   | ✓                  |                | ✓                        | ✗                             |

Of the 12 unilateral trade agreements that Philippines and VietNam are beneficiaries, only the GSP programs from the United States and European Union have labour provisions stipulated. Environmental provisions are included in the EU GSP+.

The EU GSP+ grants duty free access to the same 66% of EU tariff lines as the Standard GSP to beneficiaries that are found to be especially vulnerable in terms of economic diversification and import volumes. In return, these countries must ratify and effectively implement 27 core international conventions, human and labour rights, environmental protection, and good governance. As of January 1, 2019, there were eight GSP+ beneficiary countries including the Philippines.

### **Voluntary Sustainability Standards: Comparison Matrix**

| Summary of Coverage, Premium Price, and Costs |   |         |      |   |  |
|---|---|---------|------|---|--|
| VSS   | Summary of Coverage   |         |      | Premium Price   | Fees and costs   |
| Coffee, Cacao, and Coconut                    |   |         |      |   |  |
| 4C Code of Conduct                            | Thematic Area   | Score   | Rank | No fixed premium or fixed price for coffee supplied by certified 4C Units | Yearly membership fees for all actors along the chain according to size and position in chain. Farmer’s fee is smallest.<br><br>Audit fee (certifying body): US\$ 300 to 600/day |
|   | Overall   | 340/435 | 1    |   |  |
|   | Environment   | 108/145 | 2    |   |  |
|   | Social/Labour   | 105/135 | 1    |   |  |
|   | Management  | 38/47   | 1    |   |  |
|   | Quality   | 68/85   | 1    |   |  |
|   | Ethics  | 21/23   | 1    |   |  |
|   | For coffee specific VSS, 4C has the widest coverage overall. It also ranks first in social/labour and quality/food safety. It ranks second in environmental coverage.<br><br>The focus of the VSS is on |         |      |   |  |

| Summary of Coverage, Premium Price, and Costs |   |         |      |  |   |  |
|---|---|---------|------|--|---|--|
| VSS   | Summary of Coverage   |         |      | Premium Price  | Fees and costs  |  |
|   | improving producers’ agro-ecological practices and helping them become more productive as the primary means to improving livelihoods and achieving increased sustainability   |         |      |  |   |  |
| UTZ   | Thematic Area   | Score   | Rank | UTZ premium is mandatory and agreed upon between the certified group or producer and the first buyer, is net of any deductions for repayment of pre-financed goods or services, and is registered in the UTZ Good Inside Portal. | <u>Programme fee (paid to UTZ)</u><br>Cocoa: US\$ 12.90/MT of cocoa bean equivalent paid by 1st buyer<br><br>Coffee: Euro 26.50/MT of green coffee bean equivalent paid by 1st buyer<br><br><u>Audit costs</u><br>Depends on size of production unit to be audited.<br>Audit fee can be up to US\$ 5,000 for first audit; 2nd audit to check on implementation of corrective actions can be up to US\$ 2500 |  |
|   | Overall   | 263/435 | 2    |  |   |  |
|   | Environment   | 82/145  | 4    |  |   |  |
|   | Social/Labour   | 92/135  | 2    |  |   |  |
|   | Management  | 27/47   | 2    |  |   |  |
|   | Quality   | 57/85   | 2    |  |   |  |
|   | Ethics  | 5/23    | 4    |  |   |  |
|   | For cocoa beans, UTZ is the top VSS. It has the widest coverage in terms of social/labour and quality/food safety. It is, however, relatively weak in terms of environment.<br><br>It also focuses on improving agricultural practices as platform for promoting sustainable livelihoods.                                 |         |      |  |   |  |
| Rainforest Alliance                           | Thematic Area   | Score   | Rank | No minimum or guaranteed prices, although many producers receive a premium. Prices are determined in a negotiation process between   | Code of Conduct: Audit fees + travel expenses + administrative fees<br><br>CoC: Auditing fee + Travel Expenses+Programme Fee<br>The auditing fee depends on the size and complexity of the company and its Chain of Custody system.<br><br>Programme Fee/Royalty  |  |
|   | Overall   | 245/435 | 3    |  |   |  |
|   | Environment   | 123/145 | 1    |  |   |  |
|   | Social/Labour   | 87/135  | 3    |  |   |  |
|   | Management  | 19/47   | 4    |  |   |  |
|   | Quality   | 8/85    | 5    |  |   |  |
|   | Ethics  | 8/23    | 2    |  |   |  |
|   | The VSS is strong in terms of environmental coverage. The Rainforest Alliance focuses relatively more intensely on decreasing the environmental impact of agricultural crop production. It is relatively weak though in terms of food safety and quality. The merged UTZ and Rainforest Alliance will most likely address |         |      |  |   |  |

| Summary of Coverage, Premium Price, and Costs |   |         |      |   |  |
|---|---|---------|------|---|--|
| VSS   | Summary of Coverage   |         |      | Premium Price   | Fees and costs   |
|   | their respective weaknesses making it the stronger VSS.   |         |      | the buyer and seller.   | Cocoa: US\$0.0129 per kilogram of cocoa beans --- if beans are exported, this is paid by exporter; if for local processing, this is paid by first buyer.   |
| Fairtrade                                     | Thematic Area   | Score   | Rank | Producers receive the Fairtrade Minimum Price and Premium     | Certification fees depend on the size of the organization and the role it plays in the Fairtrade system.<br><br>Buyers are not charged a licensing fee, but they must pay at least the Fair Trade Minimum Price and provide up to 60% of pre-harvest financing when requested by cooperatives.<br><br>Licensed roasters pay TransFair USA US\$ 0.10 per pound to cover the cost of audits, consumer awareness campaigns and FLO affiliation. |
|   | Overall   | 159/435 | 5    |   |  |
|   | Environment   | 80/145  | 5    |   |  |
|   | Social/Labour   | 56/135  | 4    |   |  |
|   | Management  | 21/47   | 3    |   |  |
|   | Quality   | 16/85   | 4    |   |  |
|   | Ethics  | 7/23    | 3    |   |  |
|   | Fairtrade is not so strong in coverage of the priority thematic areas of this study.<br><br>The focus of Fairtrade is on changing relationships in the supply chain and delivering a larger share of the benefits to smallholder producers. |         |      |   |  |
| Organic                                       | Thematic Area   | Score   | Rank | With price premiums - -- negotiated between farmer and buyer. | Audit fees: US\$ 400 to 700 per day<br><br>Cost of conversion<br><br>Yield may go down during transition phase.  |
|   | Overall   | 174/435 | 4    |   |  |
|   | Environment   | 90/145  | 3    |   |  |
|   | Social/Labour   | 50/135  | 5    |   |  |
|   | Management  | 9/47    | 5    |   |  |
|   | Quality   | 25/45   | 3    |   |  |
|   | Ethics  | 0/23    | 5    |   |  |
|   | Organic VSS is moderately strong in terms of environment and quality but weak in social/labour.   |         |      |   |  |
| Meat  |   |         |      |   |  |
| GRMS  | Thematic Area   | Score   | Rank | No premium price  | The fee for issuing audit reports and certificates is currently 250 €.<br><br>Audit fee (certifying body): Depends on number of workers, volume of   |
|   | Overall   | 164/512 | 1    |   |  |
|   | Environment   | 27/157  | 3    |   |  |
|   | Social/Labour   | 7/139   | 4    |   |  |
|   | Management  | 16/46   | 1    |   |  |
|   | Quality   | 114/148 | 2    |   |  |
|   | Ethics  | 0/22    | 4    |   |  |



| Summary of Coverage, Premium Price, and Costs |  |         |      |                  |   |
|---|--|---------|------|------------------|---|
| VSS   | Summary of Coverage  |         |      | Premium Price    | Fees and costs  |
|   | It has the most number of coverage. Strength lies on management and quality but weak in social/labour and moderate in environment. |         |      |                  | production, and other factors; ranges between US\$ 300 to 600/ day  |
| GLOBALG.A.P. Livestock                        | Thematic Area  | Score   | Rank | No premium price | The costs for certification consist of the following:<br><br>Costs for implementing the standard<br><br>GLOBALG.A.P. registration fee: Charged by the GLOBALG.A.P. Secretariat via the certification bodies. This depends on annual volume of production (meat volume at point of slaughter)<br><br>Service fees to the certification body: Costs for the audits (time, travel costs) and services are negotiated directly between the producer and the certification body. Costs depends on individual price policies, duration of the audit, travel costs, time needed for preparation, and follow-up. Audit fees range from US\$ 300 to 600 per day. |
|   | Overall  | 144/512 | 3    |                  |   |
|   | Environment  | 41/157  | 1    |                  |   |
|   | Social/Labour  | 49/139  | 1    |                  |   |
|   | Management   | 16/46   | 1    |                  |   |
|   | Quality  | 34/148  | 5    |                  |   |
|   | Ethics   | 4/22    | 1    |                  |   |
|   | Has the greatest number of coverage in environment, social/labour, ethics, and management but weak in quality.                     |         |      |                  |   |
| SMIC HALAL FOOD                               | Thematic Area  | Score   | Rank | No premium price | The cost depends on the number of audit hours required and could range between US\$ 40 to 70 per audit hour.  |
|   | Overall  | 67/512  | 5    |                  |   |
|   | Environment  | 15/157  | 5    |                  |   |
|   | Social/Labour  | 2/139   | 5    |                  |   |
|   | Management   | 1/46    | 4    |                  |   |
|   | Quality  | 49/148  | 4    |                  |   |
|   | Ethics   | 0/22    | 4    |                  |   |

| Summary of Coverage, Premium Price, and Costs |   |         |      |                  |   |
|---|---|---------|------|------------------|---|
| VSS   | Summary of Coverage   |         |      | Premium Price    | Fees and costs  |
|   | The weakest in overall coverage, environment, and social/labour. Weak also in terms of management, quality, and ethics. |         |      |                  | <p>Average range between US\$ 1000 a year for SMEs and US\$ 3000 for medium to large processors.</p> <p>Certifications of abattoirs, which are done four times a year, cost approximately US\$ 2,000 to 3,000 per audit.</p> <p>The number of audit hours depends on the size of the company and the other certificates obtained by the company. For example, a company with food safety ISO 22000 or quality system certifications will not require more than three audit hours.</p> |
| FSSC 22000                                    | Thematic Area   | Score   | Rank | No premium price | Costing based on company size   |
|   | Overall   | 151/512 | 2    |                  |   |
|   | Environment   | 22/157  | 4    |                  |   |
|   | Social/Labour   | 8/139   | 3    |                  |   |
|   | Management  | 3/46    | 3    |                  |   |
|   | Quality   | 115/148 | 1    |                  |   |
|   | Ethics  | 3/22    | 2    |                  |   |
|   | Has the second highest overall coverage and tops in terms of quality. Weak in environmental aspects and social/labour   |         |      |                  |   |
| IFS   | Thematic Area   | Score   | Rank | No premium price | <p>Audit fees: US\$ 300 to 700 per day</p> <p>The IFS Food 6 prescribes rules for the duration of an IFS audit. The tool calculates the number of days based on the scope of the audit and the number of employees.</p>   |
|   | Overall   | 105/512 | 4    |                  |   |
|   | Environment   | 35/157  | 2    |                  |   |
|   | Social/Labour   | 13/139  | 2    |                  |   |
|   | Management  | 7/46    | 2    |                  |   |
|   | Quality   | 58/148  | 3    |                  |   |
|   | Ethics  | 2/22    | 3    |                  |   |
|   | Ranks 4th in terms of overall coverage. Ranks 2nd in environmental, social/labour, and management.                      |         |      |                  |   |
| Shrimps and Pangasius                         |   |         |      |                  |   |
| ASC Pangasius                                 | Thematic Area   | Score   | Rank | No fixed premium | Yearly membership fees for all actors along the   |
|   | Overall   | 148/449 | 5    |                  |   |

| Summary of Coverage, Premium Price, and Costs |   |         |      |                  |  |  |
|---|---|---------|------|------------------|--|--|
| VSS   | Summary of Coverage   |         |      | Premium Price    | Fees and costs   |  |
|   | Environment   | 59/160  | 5    |                  | chain according to size and position in chain. Farmer’s fee is smallest.<br><br>Audit fee (certifying body): US\$ 300 to 600/day   |  |
|   | Social/Labour   | 58/137  | 4    |                  |  |  |
|   | Management  | 13/49   | 3    |                  |  |  |
|   | Quality   | 13/86   | 3    |                  |  |  |
|   | Ethics  | 5/21    | 1    |                  |  |  |
|   | Environmental and social coverage of ASC is relatively weak compared to other aquaculture specific standards. It ranked third in terms of coverage of quality. Among the aquaculture VSS, it has the highest coverage in ethics.  |         |      |                  |  |  |
| ASC Shrimp                                    | Thematic Area   | Score   | Rank | No fixed premium | Same as in ASC Pangasius   |  |
|   | Overall   | 163/449 | 4    |                  |  |  |
|   | Environment   | 70/160  | 3    |                  |  |  |
|   | Social/Labour   | 60/137  | 3    |                  |  |  |
|   | Management  | 20/49   | 1    |                  |  |  |
|   | Quality   | 10/86   | 4    |                  |  |  |
|   | Ethics  | 3/21    | 3    |                  |  |  |
|   | ASC shrimp is strong in management vis-à-vis other VSS. It ranks third in environmental and social/labour coverage.   |         |      |                  |  |  |
| GAA-BAP                                       | Thematic Area   | Score   | Rank | 0 – 10%          | Farm operator has to pay:<br><br>- US\$ 500 processing fee<br><br>- An inspection fee to certifiers (up to US\$ 5000) depending on the country in which the facility is located, and total annual seafood production volume<br><br>Processing facilities:<br>Participation Fee, based on the amount of finished products exported in a calendar year:<br><br>○ < 1 000 tonnes of finished products: Min. US\$ 2 000<br><br>○ >1 000 tonnes of finished products: |  |
|   | Overall   | 210/449 | 1    |                  |  |  |
|   | Environment   | 67/160  | 4    |                  |  |  |
|   | Social/Labour   | 67/137  | 2    |                  |  |  |
|   | Management  | 8/49    | 4    |                  |  |  |
|   | Quality   | 63/86   | 1    |                  |  |  |
|   | Ethics  | 5/21    | 1    |                  |  |  |
|   | Overall, BAP has the highest coverage. It ranks relatively low in environment but strong in quality/food safety and social/labour. BAP has the highest coverage on conditions of work and social protection. It also ranks high in employment and employment relationships.<br><br>BAP is less systematic as it requires environmental impact assessment (FAO criterion) only if it is required by national legislation. BAP does not explicitly ban or regulate the use of genetic modified organisms. |         |      |                  |  |  |

| Summary of Coverage, Premium Price, and Costs |  |         |      |                  |  |  |
|---|--|---------|------|------------------|--|--|
| VSS   | Summary of Coverage  |         |      | Premium Price    | Fees and costs   |  |
|   |  |         |      |                  | US\$2/tonne (max. USD 8 000)<br><br>Recertification costs: Annually between US\$ 1000 and 3000<br>After initial certification, facilities have to pay a yearly inspection fee and program fee based on production volume. Minimum and maximum values are set according to facility type. |  |
| GLOBALG.A.P. Aquaculture                      | Thematic Area  | Score   | Rank | No premium price | Same as in GLOBALG.A.P Livestock   |  |
|   | Overall  | 199/449 | 2    |                  |  |  |
|   | Environment  | 78/160  | 2    |                  |  |  |
|   | Social/Labour  | 81/137  | 1    |                  |  |  |
|   | Management   | 17/49   | 2    |                  |  |  |
|   | Quality  | 21/86   | 2    |                  |  |  |
|   | Ethics   | 4/21    | 2    |                  |  |  |
|   | GlobalGAP ranks second in overall coverage. It has the highest social/labour coverage and ranks second in environment and food safety/quality.<br>It has adopted a management-based approach on issues such as predator control, mangrove restoration, for which the other standards have descriptive requirements.<br><br>The GLOBALGAP appears to be the better aquaculture specific VSS |         |      |                  |  |  |
| BRC UK  | Thematic Area  | Score   | Rank | No premium price | Audit fees: US\$ 400 to 800 per day depending on the scope, country of destination and volume of sales   |  |
|   | Overall  | 61/449  | 6    |                  |  |  |
|   | Environment  | 21/160  | 6    |                  |  |  |
|   | Social/Labour  | 9/137   | 6    |                  |  |  |
|   | Management   | 8/49    | 4    |                  |  |  |
|   | Quality  | 21/86   | 2    |                  |  |  |
|   | Ethics   | 2/21    | 4    |                  |  |  |
|   | BRC is focused primarily on food safety and quality. It has weak coverage on all other aspects.  |         |      |                  |  |  |
| Naturland                                     | Thematic Area  | Score   | Rank | No premium price | Group - 1 euro per producer per year; minimum of 300 members   |  |
|   | Overall  | 173/449 | 3    |                  |  |  |
|   | Environment  | 97/160  | 1    |                  |  |  |
|   | Social/Labour  | 44/137  | 5    |                  |  |  |
|   | Management   | 8/49    | 4    |                  |  |  |
|   | Quality  | 21/86   | 2    |                  |  |  |

| Summary of Coverage, Premium Price, and Costs |  |         |      |                  |  |
|---|--|---------|------|------------------|--|
| VSS   | Summary of Coverage  |         |      | Premium Price    | Fees and costs   |
|   | Ethics   | 3/21    | 3    |                  | License fee: minimum per year 1% of the net sale (minimum of 500 euros)<br>Audit fees: USD 1500 – 3000 a year  |
|   | Naturland’s strength is on environment and quality. It is relatively weak in social/labour although continuous updating is being made on social/labour coverage. |         |      |                  |  |
| Tuna  |  |         |      |                  |  |
| BSCI  | Thematic Area  | Score   | Rank | No premium price | BSCI participants pay an annual fee, which depends on the annual turnover of their company (from 3.000 Euros to 30.000 Euros). The membership fee is not related to audit costs.<br><br>amfori BSCI determines the minimum length of an audit, but every auditing company defines its own service rate.  |
|   | Overall  | 175/407 | 1    |                  |  |
|   | Environment  | 59/167  | 4    |                  |  |
|   | Social/Labour  | 99/112  | 1    |                  |  |
|   | Management   | 9/29    | 2    |                  |  |
|   | Quality  | 0/78    | 3    |                  |  |
|   | Ethics   | 8/21    | 1    |                  |  |
|   | BSCI has the highest overall coverage. It is strong in social/labour but weak in environment and quality.  |         |      |                  |  |
| MSC   | Thematic Area  | Score   | Rank | No premium price | The cost of fishery assessments varies and depends on the complexity of the fishery, the availability of information and the level of stakeholder involvement. Anecdotal information indicates that the current cost of certification ranges between US\$ 15,000 to 120,000. It can be over US\$ 120,000 for complex assessments with multiple units of certification. |
|   | Overall  | 143/407 | 3    |                  |  |
|   | Environment  | 70/167  | 2    |                  |  |
|   | Social/Labour  | 60/112  | 2    |                  |  |
|   | Management   | 9/29    | 2    |                  |  |
|   | Quality  | 1/78    | 2    |                  |  |
|   | Ethics   | 3/21    | 2    |                  |  |
|   | MSC has moderate coverage on environment and social/labour but is weak on quality.   |         |      |                  |  |
| FOS   | Thematic Area  | Score   | Rank | No premium price | The audit cost depends on its complexity. A quotation is issued after all data is collected.   |
|   | Overall  | 125/407 | 4    |                  |  |
|   | Environment  | 67/167  | 3    |                  |  |
|   | Social/Labour  | 51/112  | 3    |                  |  |
|   | Management   | 4/29    | 3    |                  |  |
|   | Quality  | 0/78    | 3    |                  |  |
|   | Ethics   | 3/21    | 2    |                  |  |
|   |  |         |      |                  |  |

| Summary of Coverage, Premium Price, and Costs |  |         |      |                  |  |
|---|--|---------|------|------------------|--|
| VSS   | Summary of Coverage  |         |      | Premium Price    | Fees and costs   |
|   | FOS has the lowest coverage among the VSS compared. Among tuna/wild capture specific VSS, it has the lowest coverage on environment and does not cover quality. It has the 2nd to the lowest coverage on social/labour among capture fishery specific VSS. |         |      |                  | Average cost is approximately 5,000 Euros.   |
| Naturland Wildfish                            | Thematic Area  | Score   | Rank | No premium price | Audit fee: US\$ 1500 – 3000 a year --- can be higher depending on complexity<br><br>Membership fee: depending on size of company and group. For groups, 1 Euro per producer per year.<br><br>License fee: minimum per year 1% of the net sale (minimum of 500 euros) of certified products<br><br>Audit fees: USD 1500 – 3000 a year |
|   | Overall  | 164/407 | 2    |                  |  |
|   | Environment  | 78/167  | 1    |                  |  |
|   | Social/Labour  | 43/112  | 4    |                  |  |
|   | Management   | 14/29   | 1    |                  |  |
|   | Quality  | 26/78   | 1    |                  |  |
|   | Ethics   | 3/21    | 2    |                  |  |
|   | Naturland is strong in environment and quality but weak in social/labour.  |         |      |                  |  |

### **Costs and Benefits of VSS and Mandatory Requirements**

The information and discussions presented in the study excerpts from available literature rather than primary data gathering. Adoption of VSS in Vietnam appears to be more robust than in the Philippines especially in the subsectors covered in this study. There appears to be no in-depth study yet relating to the effects of VSS on Philippine exporters.

The following are the key insights that can be gleaned from the various studies:

#### **Mandatory Requirements**

a) Mandatory requirements become trade obstacles and pose additional costs to exporters due to:

- Complex and cumbersome requirements
- Procedural obstacles

The degree of negative impact of mandatory requirements depends on the severity and complexity of the technical and/or procedural requirements. A key challenge, therefore, is how to incorporate efficiency and facilitative measures in the implementation and administration of mandatory requirements.

- b) Compliance to mandatory requirements helps ensure that products meet the basic requirements of destination countries especially in terms of food safety. It reduces risk of rejection.
- c) Mutual recognition agreements among partner countries, greater transparency, and adherence to international standards/higher regulatory convergence between and among trading partners can help reduce compliance costs and enhance positive impact of mandatory costs on promoting trade growth.

#### Voluntary Sustainability Standards

- a) The net benefits of VSS depend to a significant extent on the product concerned, end market, characteristics and structure of the supply chain, and position of the enterprise within that structure including its scale and productivity. It also depends on the standards market attributes level of demand in target markets. Income from certified products can also be limited by the extent to which markets absorb the total volume of certified products
- b) Economic benefits are more or less assured in VSS with in-built premium guarantees such as the Fairtrade in many cases, certification assures continued access to certification-centric market segments (linked to reputational issues and advocacy group pressure) with no price premium guarantee. If sizeable number of buyers adopt VSS, this makes VSS a de facto requirement for accessing a market.
- c) Majority of the studies indicated that adoption of VSS contributed to improved environmental and food safety performance. Many of the studies reviewed by the research team indicated that certified farmers hired more workers than non-certified farms. Impact of VSS on social and work conditions though was less studied. It was also not clear whether training on workers safety and health and decent work was conducted especially for VSS that included labour and social conditions.
- d) Compliance with VSS entails two types of costs: (i) certification and audit fees; and (ii) implementation costs. Among smallholders and small enterprises covered in the studies reviewed, initial certification and audit fees are generally subsidized by buyers and development programs. Renewal costs, however, are generally shouldered by the farmers themselves. Implementation costs include investments for upgrading facilities, technologies, and practices to conform to standards. In many cases, training was provided by development programs but implementation costs to effect the changes were borne by farmers/enterprises. The amount of implementation costs depends on the degree of change that is required. Scale of operations, level of productivity, and alignment of existing facilities and technologies to standards influence implementation costs. If change required is complex and will require high costs, it will dilute whatever benefits that may accrue from certification.

Costs associated with changing production techniques upgrading facilities to obtain certification can sometimes be higher than the certification and audit costs. Although not explicitly discussed in the studies, upgrading of technologies and facilities can also contribute to improving work conditions if purposively designed to do so.

- e) Group certification seeks to facilitate the inclusion of smallholders. Organizational development though also requires resources and, oftentimes, external assistance. Net benefits from sustainability certification also depend on level of organizational development of groups.

- f) A multiplicity of VSS may also lead to confusion among consumers, undermining the credibility of VSS. It also increases operations costs of enterprises as VSS certifications call for renewal every three to five years. Investment costs to conform to various VSS may not be so high as standards usually have similar features and requirements.
- g) VSS as a differentiation strategy appears to hold true only during the early adoption stage. As supply of VSS certified products increases, differentiation advantage wanes.

## **Conclusions**

- The following are the significant products/subsectors for the Philippines in terms of participation in global value chains and in which VSS plays a moderate to strong role in sourcing decisions:
  - Virgin coconut oil
  - Coconut water
  - Tuna
- The following are the significant products/subsectors for Vietnam in terms of participation in global value chains and in which VSS plays a moderate to strong role in sourcing decisions:
  - Coffee
  - Shrimp
  - Pangasius
  - Tuna
- VSS and GSP+ as well as the new generation of EU FTAs use trade as a leverage to foster sustainable development. VSS focuses on the level of producers and production sites while GSP+ and EU FTAs work on the level of government policies and governance.
- The interaction between public and private standards/VSS is more advanced for food safety and quality vis-à-vis social and environmental standards. Generally, mandatory export requirements define the minimum requirements to be fulfilled and VSS establish the tools and processes to meet these requirements.
- Harmonization of mandatory export/import requirements among and between trading partners has the potential to make trade more efficient as exporters could comply with globally accepted standards instead of complying with different standards for each target market or buyer. Mandatory product standards do not create unnecessary barriers to trade if they are based on internationally agreed standards. Likewise, many of the constraints are rooted to inefficient procedures to comply with the requirements.
- Majority of the VSS use the core ILO international labour standards as the main reference for designating rights and working conditions when setting their standards. Likewise, most of the VSS refer to national law in their requirements relating to specific issues, including child labour, women's rights, minimum wages, and working conditions. To some extent, compliance is contextual and depends on the comprehensiveness of national laws.

Labour standards, however, appear to be the least studied in relation to impact of VSS. It may be necessary for ILO to provide guidance on how to assess labour outcomes and impact in relation to VSS adoption.



- There is a paucity of studies on the effective demand for labour specific VSS among lead firms and retailers in supply chains of shortlisted commodities covered in this study. Based on literature review conducted by the team, it is difficult to make conclusions as to the “market demand” for labour specific VSS.
- The available studies suggest that VSS can be beneficial, but context matters. Effectiveness and importance of VSS in sourcing decisions depend on business models that are product and context specific. Certification works for enterprises that are already reasonably well-managed, have access to resources, have access to markets that are able to better value their products, and operate in fairly well-functioning local governance structures. Moreover, a lack of institutional and technical capability to enable accessible certification can present significant challenges to enterprises in demonstrating their compliance with the VSS.
- Certification is only commercially viable if benefits to enterprises are tangible. Agro-ecological and labour standards will only be implemented and maintained if they improve productivity, or if there is a price premium large enough to cover the costs. Unfortunately, most VSS do not offer premium price. As such, benefits have to be mainly in terms of improved productivity, cost efficiency, product quality improvement, and access to bigger and more lucrative markets.
- For most products included in the study, the supply of certified products is so much larger than the demand. This suggests the need for VSS promotion has to be supported with market development and better provision of information to consumers both through the schemes and about the schemes. This also implies the need to work closely with lead firms and to take a value chain approach in VSS promotion.
- VSS certification contributes to the upgrading of capabilities of producers. However, achieving certification can be a costly process as it does not only involve paying for certification, but more importantly, the cost of the process changes required to meet the requirements. Resource poor vulnerable producers are able to comply with VSS only with substantial external help. This has significant development implications, as those in greatest need of the increased incomes offered by inclusion in export-oriented chains are the most likely to be squeezed out of the market by the effects of the voluntary sustainability standards.
- Economies of scale can reduce the compliance costs by spreading the economic burden among a number of farmers or fishers, or by facilitating processes of consolidation and concentration. This suggests the need for horizontal collaboration and the formation of groups as prerequisites to certification among small enterprises.
- The multiplicity of VSS can be a source of additional costs and barriers to trade. It calls for greater coordination, including mutual recognition. To date, most of mutual recognition agreements are among and between developed countries.
- The trend toward multiple certifications is primarily because it is easier to certify those that have already been certified than to certify those who have never before met the requirements of a similar standard. Many of the more difficult requirements, such as record keeping, traceability and good agricultural practices, are commonly shared among the different certifications. Producers who have multiple certifications face higher costs but are likely to improve their opportunities to access diverse markets and satisfy different buyers/market segments.

# 1 INTRODUCTION

## A. OVERALL OBJECTIVES

The overall objective of the study is to provide a comprehensive and updated picture on the buyer demand in the selected agri-food supply chains in order to kick-start an informed policy dialogue on the topic in conjunction with the digital traceability and to explore operationalizing the Future of Work agenda of the ILO at the country level, particularly in the Philippines and Vietnam where the original idea of tapping the technological innovations towards Safe, Fair and Sustainable Food Supply Chains was developed. The outcome of the activities is expected to contribute to feasible project proposals for the two countries and could inspire similar projects across the Region.

The specific objectives of the study are to:

- a) Understand different requirements for the producers and exporters of the specific agro-fishery food products.
- b) Understand the compliance cost of the mandatory requirements and the capacity gap among small farmers/fisherfolks and SME producers.
- c) Understand the cost and benefits of the voluntary certification schemes for the small farmers/fisherfolks and SME producers.
- d) Understand the initiatives to reduce the compliance burden for the producers/exporters (particularly the small ones), e. g., the usage rate of the harmonized social audit methodology, harmonization between the international standards and national ones (e. g., Global GAP. and the national GAPs).
- e) Extract lessons learned and develop recommendations for the governments, the large buyers and the social partners.

## B. SCOPE AND EXPECTED OUTPUTS: PHASE 1

The study covers the following agri-food supply chains in the Philippines and Vietnam: cacao, coffee, Pangasius, tuna, shrimp, and meat. The review of mandatory (national and major importing countries) and voluntary sustainability standards (VSS) is focused on three thematic areas: food safety, labour rights and working conditions, and environmental sustainability.

The following are the key tasks and outputs for Phase 1:

- f) Preliminary mapping of the mandatory and voluntary requirements of the international buyers of the agro-fishery food supply chains of the Philippines and Vietnam through literature review and internet search.
- g) Key informant interview with the import-export promotion agencies of the originating as well as the importing countries to complete the mapping exercise and understanding their views on the key requirements and the existing issues, as well as get introduction to the key buyers in their respective countries.
- h) Listing of the key buyers/importers of different typology for the in-depth interview.
- i) Preliminary analysis of the range of mandatory and voluntary requirements, their cost and benefits, their convergence with the international conventions and guidelines related to food safety, labour rights and working conditions, and environmental sustainability, and the challenges identified.
- j) Semi-structured questionnaire and design plan for Phase 2

## **C. METHODOLOGY**

The study used a combination of desk review and key informant interviews (KII). To the extent possible, only studies and market researches that were not more than “five years old” were included in the review. Key informants consisted of officials of government agencies in the Philippines and Vietnam involved in export trade and promotion, representatives of key certification bodies, and organizations involved in VSS. The key informants are listed in Annex E. The collected data were then analysed systematically to come up with the expected Phase 1 outputs.

Data collection consisted of the following:

- a) Review of market researches, sustainability reports, and value chain studies to identify dominant VSS in the market, major buyers especially those sourcing from the Philippines and Vietnam and the VSS they require or espouse, market trends, and determine participation of Philippines and Vietnam in the global value chain of shortlisted commodities.
- b) Interview with major certifying bodies and organizations involved in VSS to gather information on costs/constraints, benefits, and major buyers requiring VSS.
- c) Interview with government agencies in Vietnam and Philippines involved in export trade to map mandatory regulations and understand constraints, costs, and benefits.
- d) Interview with lead firms in the Philippines to gather info on VSS, major buyers requiring these VSS, and costs/benefits.
- e) Review of impact studies and assessments of VSS and mandatory requirements to gather information on costs/constraints and benefits/opportunities.
- f) Review of studies on VSS and databases in the International Trade Centre Sustainability Map to compare VSS features and critical control points, and locate their roles in promoting food safety, labour rights and working conditions, and environmental sustainability.

## **D. LIMITATIONS**

1. Most of the studies on VSS is concentrated in countries with high adoption rates or those that are significant players in the global value chains.
2. Majority of the studies underscore that costs and benefits of VSS adoption depends on context.
3. There are few studies on labour specific VSS especially for sectors covered in the study and for Philippines and Vietnam in particular. Many of the VSS studies that focused on labour and social conditions were in the textile and garment sectors.
4. There is a paucity of studies on VSS that covered the effects on labour rights and working conditions especially for the sectors covered in this study.

## 2 COMMODITY TRADE PROFILE

This section provides an overview of the shortlisted commodities included in the study with a focus on: a) top importing countries; b) mandatory requirements in top importing countries; c) dominant voluntary sustainability standards; d) sustainable sourcing commitments; and e) participation of Philippines and Vietnam in the global value chains.

Table 1 outlines the summary of the findings from the desk review. In commodities with moderate to high dominance of VSS in sourcing decisions as well as medium to high participation of Philippines and Vietnam in the global value chains, it is recommended that findings be further validated via interviews with buyers/key actors in the chain from which sustainable sourcing commitments emanate.

| <b>Table 1. Summary Profiles of shortlisted commodities</b> |  |   |  |   |   |                                      |             |
|---|--|---|--|---|---|--------------------------------------|-------------|
| Commodity   | Top Importing Countries                | Key Mandatory Requirements in Importing Countries | Dominant VSS   | Dominance of VSS in sourcing decisions                  | Key Actors with Sustainable Sourcing Commitments  | Participation in Global Value Chains |             |
|   |  |   |  |   |   | Philippines                          | Vietnam     |
| Cocoa   | Europe<br>USA<br>Malaysia<br>Indonesia | Food safety                                       | UTZ<br>Rainforest Alliance<br>Fairtrade<br>Organic                         | Moderate  | Processors/<br>Grinders<br><br>Chocolate/<br>confectionery<br>manufacturers                                     | Very low                             | Low         |
| Coffee  | Europe<br>USA<br>Japan                 | Food safety                                       | 4C<br>Fairtrade<br>Organic<br>Rainforest Alliance<br>UTZ                   | <b>Moderate</b><br><br>Supply of VSS certified > Demand | Importers/<br>traders<br><br>Roasters/<br>manufacturers   | Very low                             | <b>High</b> |
| Coconut Oil   | Europe<br>USA<br>Malaysia              | Food safety                                       | Rainforest Alliance  | Very low  | Importer –<br>Oleochemical –<br>Personal Care<br><br>To date, only chain of Cargill – BASF – Procter and Gamble | High                                 | Very low    |
| Desiccated Coconut  | USA<br>Europe<br>Singapore             | Food safety                                       | Organic<br>Fairtrade   | Very low  | Confectionery manufacturers   | High                                 | Low         |
| Virgin Coconut Oil  | USA<br>Europe                          | Food safety                                       | Organic<br>Fairtrade   | <b>Moderate</b>   | Retailers<br>Food and personal care manufacturers   | <b>High</b>                          | Low         |
| Coconut Water   | USA<br>Europe                          | Food safety                                       | Organic<br>Fairtrade   | <b>Moderate</b>   | Retailers<br>Multinational manufacturers  | <b>High</b>                          | Low         |
| Pangasius   | USA<br>Europe<br>China                 | Food safety                                       | ASC<br>GlobalGAP<br>GAA-BAP<br>Friends of the Sea<br>Naturland/<br>organic | <b>Moderate</b>   | Retailers<br>Food service companies   | Very low                             | <b>High</b> |

| Table 1. Summary Profiles of shortlisted commodities |  |   |  |  |  |                                      |  |
|--|--|---|--|--|--|--------------------------------------|--|
| Commodity  | Top Importing Countries                                  | Key Mandatory Requirements in Importing Countries | Dominant VSS   | Dominance of VSS in sourcing decisions | Key Actors with Sustainable Sourcing Commitments | Participation in Global Value Chains |  |
|  |  |   |  |  |  | Philippines                          | Vietnam  |
| Shrimp   | Europe<br>USA<br>Japan                                   | Food safety                                       | ASC<br>GlobalGAP<br>GAA-BAP<br>Friends of the Sea<br>Naturland/<br>organic | <b>Moderate</b>                        | Retailers<br>Food service companies              | Low                                  | <b>High</b>  |
| Tuna   | USA<br>Europe<br>Japan                                   | Food safety<br>Environmental standards            | MSC<br>Friends of the Sea  | <b>High</b>                            | Retailers<br>Canners                             | <b>High</b>                          | <b>Medium</b>  |
| Meat Products  | China<br>UAE<br>Japan<br><br>For Vietnam and Philippines | Food safety                                       | Halal<br>Organic<br>GlobalGAP  | Halal – UAE<br><br>Generally, very low | Retailers  | Very low                             | Low; medium for pork but currently affected by African Swine Fever |

## A. CACAO/COCOA

Cocoa is an important ingredient in the confectionery, and food and beverage industries, and, more recently, in the pharmaceutical and cosmetics industries. Of the average 4 million MT of cocoa beans produced annually, it is estimated that around 92% is utilized for chocolate production. The remaining 8% is used by cosmetics and the health and wellness sectors. This study covers mainly the cocoa-chocolate global value chain with a focus on cocoa beans which are the main export products of Philippines, Vietnam, and other Asian countries.

The following are the different cocoa product formats traded in the world market:

1. Cocoa beans: More than 60% of world export of cocoa products is comprised of cocoa beans from developing countries. The world cocoa bean market can be segmented into two broad categories:

*Bulk/commodity beans.* The segment comprises about 90% of the world cocoa bean market. Beans exported by the Philippines belong to this category. About 60% of the beans exported by Vietnam are bulk beans. Philippines and Vietnam are minor players in the global trade of bulk cocoa beans.

Bulk beans are used for mass production. Main users are mainstream chocolate brands such as Kit Kat (Nestlé), Milky Way, M&M's and Twix (Mars), Cadbury and Toblerone (Mondelēz). The food industry mostly uses commodity cocoa for the manufacture of other food products as well. Most popular certification systems for bulk beans are the Rainforest Alliance and UTZ.

*Specialty/Fine Flavour Beans.* The segment accounts for about 10% of the market for cocoa beans. This is a low volume market characterized by high quality, fine flavour, and single origin. This segment is associated to niche sustainability labels such as organic or fair trade in addition to

sustainability certifications. It is generally purchased by smaller brands and bean-to-bar makers such as Valrhona (France), Vivani (Germany), Seed and Bean and Divine Chocolate (United Kingdom), Idilio (Switzerland), Amadei (Italy), and Original Beans (the Netherlands).

Vietnam is among the 23 countries recognized by the International Cocoa Organization (ICCO) as producers of fine flavour cocoa beans. About 40% of beans exported by Vietnam are classified as fine flavour cocoa.

2. **Roasted Cacao/Nibs:** Nibs are bits of fermented, dried, roasted and crushed cacao beans. This is the raw material used for cocoa liquor. Roasted cacao/nibs can also be consumed directly as snack food or as an additive to processed food (i.e. baking and chocolate production).
3. **Cocoa Liquor:** This is pure cocoa mass in solid or semi-solid form produced by grinding or milling the roasted cacao or nibs. In the Philippines, this is commonly known as 'tablea'. Cocoa liquor is used, with other ingredients, to produce chocolate and other products that call for unsweetened baker's chocolate.
4. **Cocoa Butter:** This is the oily liquid obtained by pressing ground roasted cacao nibs or the cocoa liquor. It is mostly used to give chocolate a smoother texture.

Cocoa butter is also used in cosmetic products such as moisturizing creams, lotions, petroleum jelly, and soaps. It is also sold directly in specialty shops. Cocoa butter is also used as a suppository and ointment base as well as an emollient.

5. **Cocoa Powder:** This is the dried residual solid mass from cocoa butter production. Cocoa powder can be used as an ingredient in almost any foodstuff.
6. **Chocolate:** It is mainly made from cocoa paste and cocoa butter. Chocolate can either be a finished product (consumer-packaged) or be used as industrial chocolate.

World imports of cocoa beans increased from 3.09 million tonnes in 2014 to 4.05 million tonnes in 2018. (ITC Trade Map, 2019) The top importing countries are Netherlands, Germany, United States of America (USA), Malaysia, Indonesia, and Belgium.

| <b>Table 2. Top 10 Importers of Cocoa Beans, 2014 and 2018</b> |                       |          |                       |          |
|--|-----------------------|----------|-----------------------|----------|
| <b>Importing Country</b>                                       | <b>2014</b>           |          | <b>2018</b>           |          |
|  | <b>Volume (in MT)</b> | <b>%</b> | <b>Volume (in MT)</b> | <b>%</b> |
| Netherlands  | 650,820               | 21%      | 1,095,079             | 27%      |
| Germany  | 244,640               | 8%       | 469,619               | 12%      |
| United States of America                                       | 437,366               | 14%      | 415,273               | 10%      |
| Malaysia   | 298,524               | 10%      | 345,489               | 9%       |
| Indonesia  | 109,410               | 4%       | 239,377               | 6%       |
| Belgium  | 263,605               | 9%       | 233,636               | 6%       |
| France   | 137,745               | 4%       | 155,910               | 4%       |
| United Kingdom   | 60,187                | 2%       | 113,620               | 3%       |
| Canada   | 65,027                | 2%       | 100,393               | 2%       |
| Spain  | 109,001               | 4%       | 99,846                | 2%       |
| Others   | 717,695               | 23%      | 779,227               | 19%      |
| World  | 3,094,020             | 100%     | 4,047,469             | 100%     |
| Source: ITC Trade Map – accessed 22 Nov 2019                   |                       |          |                       |          |

Netherlands has the largest grinding industry in Europe and ranks second in the world behind Ivory Coast. The large grinding industry in the Netherlands is attributed to the presence of large national and multinational grinders such as Cargill, Olam, and ECOM Dutch Cocoa. (CBI Ministry of Foreign Affairs, May 2017; updated March 2019)

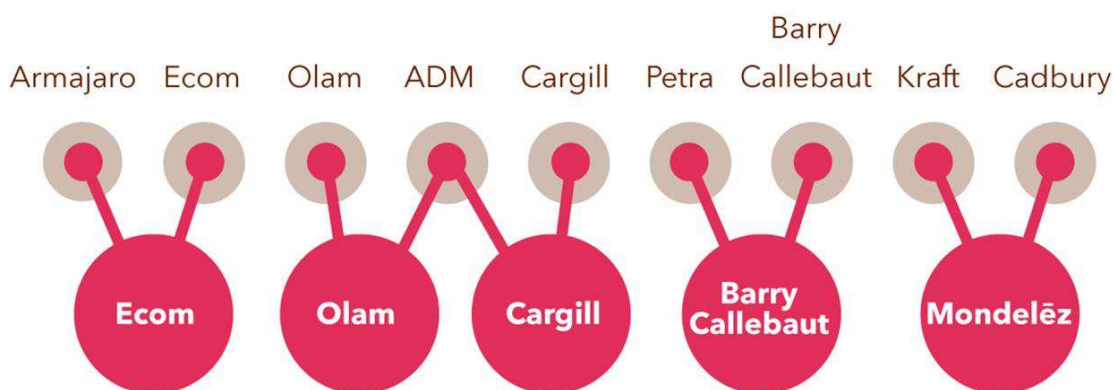
Germany is the third largest grinder in the world with Cargill, Olam, and Barry Callebaut as the major multinational grinders. It is also the leading chocolate-producing country in Europe, predominantly using bulk beans with Ferrero, Mars, and Mondelez as the major chocolate manufacturers. (CBI Ministry of Foreign Affairs, 2017; updated April 2019)

The United States has the fourth largest grinding capacity in the world. Main companies involved in cocoa trade and processing are Cargill, Blommer Chocolate Company, and Olam.

Indonesia and Malaysia are the top grinders in Asia. Key grinders in Malaysia are Guan Chong Bhd, Barry Callebaut (M) Sdn Bhd, and JB Cocoa Sdn Bhd. The significant increase in importation of cocoa beans by Indonesia is due to the expansion of grinding operations of companies such as Cargill, Barry Callebaut, JB Cocoa, and PT Bumitangerang Mesindotama as a result of favourable investment climate and the imposition of the cocoa bean export tax.

Belgium has the 11th largest cocoa grinding industry in the world. It is also the fifth largest chocolate producer in the world. The two largest cocoa processing companies in Belgium are Barry Callebaut and Mondelez. (CBI Ministry of Foreign Affairs, 2017)

Figure 1. Mergers and takeovers in the cocoa industry



Source: Cocoa Barometer 2015

Mergers and takeovers have resulted in few companies controlling cocoa processing and chocolate manufacture. Examples of such mergers and takeovers included sale of Archer Daniels Midland (ADM) of its chocolate arm to Cargill and its cocoa business to Olam. Mondelez acquired Cadbury, Ecom bought Armajaro's coffee and cocoa trading arm, and Barry Callebaut bought Petra Food's cocoa ingredients business. Merger and acquisition strategies were used by these companies to increase cost efficiency and attain greater economies of scale. An increasing number of companies have also evolved into vertically integrated farms which have created a blurred boundary between trading and processing companies. Companies such as Barry Callebaut and Blommer Chocolate Company which used to specialize in bean processing and production of semi-finished cocoa products for chocolate

manufacturers have diversified into sourcing of beans and chocolate production. Large chocolate manufacturers and brand owners such as Nestle and Mars are also directly sourcing beans from farmers or working closely with agents or consolidators. Vertical integration has helped companies to ensure traceability and quality required by consumers parallel to improving cost efficiency. (UNCTAD, 2016)

The following are the key channels through which cocoa beans are traded:

**Processors/Grinders:** Most exporters of bulk cocoa sell their beans directly to processors/grinders. The grinders process the raw cocoa beans into cocoa mass, cocoa butter and/or cocoa powder and distribute the processed products to the confectionery, food and cosmetics industries. Some grinders also manufacture end products to supply directly to the retail or food service sector.

The three biggest trading and processing companies ( Barry Callebaut, Cargill, and Olam) account for two thirds of the world's grinding and processing. (Strauss, 2018) These companies have a significant influence on price and the setting and promotion of voluntary sustainability standards.

**Importers:** Importers in the bulk bean segment handle large quantities and have contact with exporters in producing countries. Some importers specialize in dealing with smaller quantities, particularly in the specialty segment.

**Agents/Intermediate Distributors:** Agents act as intermediaries between cocoa bean exporters and larger manufacturers. Some are independent, while others are hired to make purchases on the behalf of large cocoa manufacturers or other multinationals. Agents take a commission based on their sales.

**Chocolate makers/producers:** These consist of producers of industrial and retail chocolates. As indicated earlier, an increasing number of chocolate processors are sourcing cacao beans directly from farmers and/or cacao consolidators based in the producing country. Multinational chocolate manufacturers also play a significant role in the promotion of voluntary social standards.

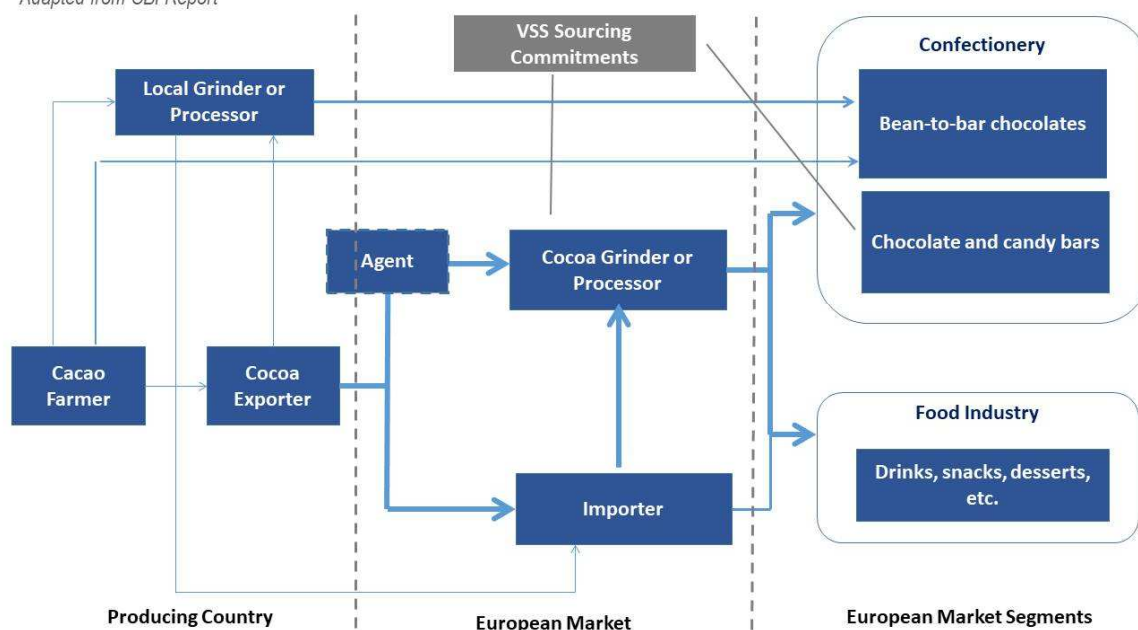
Especially in the speciality and fine flavour cocoa segment, cocoa beans are increasingly traded directly from producer to chocolate makers. The consolidation and expansion of direct trade is linked to platforms such as Direct Cacao and Cocoanect, which connect producers with chocolate makers. Direct trade has shortened the chain and strengthened the contact between producers and chocolate makers. In spite of this growth, direct trade still represents a very small part of the cocoa market. Not all chocolate makers are able to sustain direct trade, since responsibilities that are usually outsourced to traders, such as logistics, documentation and pre-financing, need to be handled by the chocolate maker. In this sense, direct trade can also happen with an importer as intermediary, who acts as a service provider and contact point in the transactions between the source and the end market. Such importers can also guarantee traceability and communicate the story of the cocoa beans accurately along the chain. (CBI, January 2018).

Figure 2 presents the main market channels for the export of cocoa products to European markets. Cocoa trading in the United States, Indonesia, and Malaysia follows similar routes as the European markets. Sourcing commitments related to voluntary sustainability standards generally emanate from processors/grinders and chocolate manufacturers.



Adapted from CBI Report

Figure 2. Market channels for the export of cocoa to European markets



The following are requirements that exporters must meet in order to enter the market for all categories of cocoa beans (bulk, bulk certified, fine flavour):

1. Cocoa beans should be grown, harvested, fermented, dried and stored using recommended practices (e.g., Good Agricultural Practices and Good Manufacturing Practices) so as to ensure levels of contaminants are as low as reasonably achievable and comply with food safety legislation.

*Heavy metals, in particular cadmium:* Cadmium content in cocoa beans should be less than 0.5 ppm. The maximum limit value for cocoa beans was derived from calculation of cadmium tolerance limit set for cocoa products in the new EU regulation. Cadmium is found naturally in the soil, but pesticides and chemical fertilizers containing cadmium are also sources of contamination. (CBI, January 2018)

No limit values are prescribed in the United States (as a national regulation, California has enacted Act 65 setting the limit at less than 0.4 ppm). The cadmium problem is generally dominant in beans from Latin America and the Caribbean areas as well as from volcanic-based soils.

*Pesticides:* The use of pesticides is allowed but residue should be within limits set by regulation. The maximum residue level (MRL) will depend on the pesticide used and may differ from one country to another. Table 2 presents examples of MRLs in cocoa beans for glyphosate and paraquat.

| Table 3. MRL for glyphosate and paraquat in cocoa beans |                                |               |       |
|---|--------------------------------|---------------|-------|
| Pesticide   | Maximum Residue Level (in ppm) |               |       |
|   | European Union                 | United States | Japan |
| Glyphosate  | 0.1                            | 0.2           | 0.2   |

| Paraquat | 0.05  | 0.05          | 0.05   |
|----------|---|---------------|--|
| Source   | EU Pesticides database<br><a href="https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=pesticide.residue.selection&amp;language=EN">https://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=pesticide.residue.selection&amp;language=EN</a> | (Bodor, 2008) | Japan Food Chemical Research Foundation<br><a href="http://db.ffcr.or.jp/front/">http://db.ffcr.or.jp/front/</a> |

*Polycyclic-aromatic hydrocarbons (PAHs):* Polycyclic aromatic hydrocarbons are a group of compounds present in the environment as a result of incomplete combustion of organic substances (e.g. wood, gas, diesel) and geochemical processes. Smoke is one of the main sources of polycyclic-aromatic hydrocarbons in cocoa beans during drying or storage. The limit for benzo(a)pyrene (which is one of the most common polycyclic-aromatic hydrocarbons) is 5.0 µg/kg of fat and 30 µg/kg for the total sum of polycyclic-aromatic hydrocarbons. (CBI, January 2018)

*Microbiological/Salmonella:* No microbiological criteria for cacao have been set in current legislation of importing countries. However, food safety authorities can withdraw imported food products from the market or prevent them from entering importing countries when micro-organisms are found.

*Foreign matter:* Although there are no regulations specific to cocoa on tolerance level for foreign matter, presence of foreign matter such as plastic, insects, mineral oil, and other contaminants can result to rejection in importing countries.

2. Food traceability regulation of importing countries requires that all that all food operators implement traceability system or the documentation on products “one step forward and one step back” in the food chain. Appropriate records and marking/coding systems should be maintained from the farmer level through the consolidator onwards and that the integrity of lots is maintained without mixing or blending throughout the supply chain
3. In support of traceability, labelling of shipment of cocoa beans should at the minimum include the following:
  - Product name
  - Grade
  - Lot or batch code
  - Country of origin
  - Net weight in kilograms
  - Name of shipper and place of business
  - If the beans are organic or fair-trade certified, the labels should list the name/code of the inspection body and certification number
4. Cocoa beans should be packed in new jute, sisal, burlap, or spunweave polypropylene bags of a weave tight enough to withstand handling and sampling by trier. Bags generally weigh between 60 to 65 kilograms.

Break-bulk method of ocean transport of cocoa beans is preferred by buyers in the United States.

In recent years, shipment of cocoa beans in bulk has been growing in popularity because it can be up to one third cheaper than conventional shipment in jute bags. Loose cocoa beans are loaded either in shipping containers containing a flexi-bag or directly into the hold of the ship, the so-called "mega-bulk" method. The latter mode is often adopted by larger cocoa processors which handle cocoa beans of standard qualities and especially those shipped in northern European ports.

In the fine flavour and specialty cocoa segments, jute bags are still commonly used. For the very high quality micro lots (i.e., small quantities), vacuum sealed GrainPro packaging can be used. (CBI, January 2018)

## 5. Quality Requirements

There are various standards of which the most important are the International Cocoa Standards and the standards as defined in the physical contracts of the Federation of Cocoa Commerce, Ltd. (FCC) and, in the United States, the Cocoa Merchants Association of America (CMA).

The following are the voluntary standards that are increasingly required by buyers from their suppliers:

**International Standards Organization (ISO).** Some of the commonly requested ISO certifications are the following: a) ISO 9000 Quality Management; (ii) ISO 22000 Food Safety Management; (iii) ISO 45001 Occupational Health and Safety; (iv) ISO 14000 Environmental Management; and (v) ISO 26000 Social Responsibility.

The ISO 2451 “Cocoa beans – Specification”, which was originally issued in 1973, was revised in 2014 to bring it into line with current commercial practices. It references three other ISO standards: ISO 1114 Cocoa beans – Cut Test, ISO 2291 Determination of moisture content (routine method) and ISO 2292 – Sampling.

**Hazard Analysis Critical Control Point (HACCP):** Most buyers require the implementation of a HACCP-based food safety system. In Europe, the most important food safety management systems are the those recognized by the Global Food Safety Initiative (GFSI) to ensure acceptance by the major retailers. Examples of these food safety systems are the following: (CBI, January 2018)

- British Retail Consortium (BRC)
- International Food Standard (IFS)
- Food Safety System Certification 22000 (FSSC 22000)
- Safe Quality Food Program (SQF)

**Global Good Agricultural Practices (GlobalGAP).** GLOBALG.A.P.’s roots began in 1997 as EUREPGAP, an initiative by retailers belonging to the Euro-Retailer Produce Working Group. GLOBALG.A.P. claims to be the world's leading farm assurance program, translating consumer requirements into Good Agricultural Practice in more than 135 countries. It helps farms comply with legislation on food safety, environmental protection, and worker health, safety and welfare.

**GlobalGAP Risk Assessment on Social Practices (GRASP):** An increasing number of European buyers are requiring GRASP as an added assurance of good social management system applied in the farm. This is also aimed at ensuring that no child labour is employed at the farm which is one of the main issues confronting the industry.

**Corporate Social Responsibility (CSR)/Codes of Conduct:** The CSR policies or codes of conducts generally cover health and safety, business ethics and social responsibility requirements. The codes of conduct may also cover issues such as: carbon neutrality, impact on producing communities, welfare of farmers and processing facility workers, and impact on local biodiversity. It may also be based on external initiatives such as the Business Social Compliance Initiative (BSCI) and Sedex Members Ethical Trade Audit (SMETA). (CBI, January 2018)

Generally, it is the large global companies and retailers who develop their own codes of conduct for adherence by their suppliers. In most cases, these companies especially the manufacturers and vertically integrated chain provide support to suppliers especially farmers to enable them to comply with the codes of conduct. Table 3 lists down examples of companies with their own codes of conduct.

| <b>Table 4. Examples of companies with their own codes of conduct</b> |  |
|---|--|
| <b>Company</b>  | <b>Codes of Conduct</b>  |
| <b>Retailers</b>  |  |
| Marks and Spencer (UK)  | Plan A 2025 Commitments  |
| Coop (Switzerland)  | Sustainability: Actions, not words   |
| Ahold (Netherlands)   | Our responsible retailing strategy   |
| Carrefour (France)  | Our vision for CSR   |
| <b>Importers, processors, and chocolate companies</b>                 |  |
| Nestle  | The Nestle Cocoa Plan  |
| Mars  | Sustainability Plan: healthy planet, thriving people, and nourishing wellbeing |
| Ferrero   | Glocal Care: Sharing values to create values                                   |
| Mondelez  | Cocoa Life   |
| Cargill   | Cocoa Promise  |
| Barry Callebaut   | Chocolate Forever  |
| Lindt   | Farming Program and Responsible Procurement                                    |
| Sources: CBI Ministry of Foreign Affairs; company websites            |  |

**Sustainability Certifications:** An increasing number of global cocoa and chocolate companies adhere to sustainability certification schemes which encompass their whole supply chain. This trend is largely driven by increasing demand from consumers for transparency on the supply chain market as well as the sustainable sourcing commitments of major cocoa grinders/processors and chocolate manufacturers. Rainforest Alliance/UTZ are the most commonly used mainstream (bulk bean) certification.

The market for Rainforest Alliance certified cocoa products is largest in the United Kingdom, Belgium and France. In the United States, Mars is the biggest buyer of Rainforest Alliance certified beans. Ivory Coast and Ghana accounted for approximately 77% of all Rainforest Alliance-certified cocoa production in the world, followed by Ecuador (7.6%) and Indonesia (5.6%) in 2017. (CBI, 2017; updated Mar 2019) It is estimated that about 7.17% of total area planted to cacao has achieved Rainforest certification. (International Trade Centre, 2019)

Europe accounts accounts for 82% of UTZ-certified cocoa supply chain actors. Netherlands has the most number of UTZ-certified cocoa and cocoa products followed by Germany, Belgium, Italy and Switzerland. Examples of UTZ-certified companies include Barry Callebaut, Ritter Sport, Friesland Campina and traders such as August Toepfer & Co., Daarnhouwer, Naturkost Übelhör, and Dutch Cocoa. There were about 13,158 new consumer products with UTZ labels that were launched in the market in 2017. (CBI, 2017; updated Mar 2019)

For UTZ certified beans, Ivory Coast and Ghana are also the main suppliers. Cameroon and Nigeria ranked third and fourth primarily due to large scale investments made by Olam to help farmers comply with the UTZ requirements and the certification process. It is estimated that UTZ certified areas comprised about 24.03% of the total area harvested to cacao. (Willer, Sampson, Voora, Dang, & Lernoud, 2019)

On the average, 45% of UTZ premium is used to further professionalise the cooperative (anchor for group certification), while 55% is paid in cash to group members. No premium payment is made to Rainforest Alliance certified producers but this would likely change with the merger with UTZ.

Some companies combine their own cocoa sustainability projects/codes of conduct and certification schemes of leading standard bodies to meet their sustainability commitments.

Aside from commitments from individual companies, three countries in Europe have committed to a clear target regarding sustainable cocoa sourcing. Barry Callebaut AG and forty other Swiss cocoa industry players have joined together under the Swiss Platform for Sustainable Cocoa, with the goal of having at least 80% of all cocoa-containing products imported into Switzerland from sustainable sources by 2025. The German Initiative on Sustainable Cocoa (GISCO), which has 70 members including government departments and industry players such as Ritters, Barry Callebaut, and Mars, has pledged to source at least 70% of cocoa in cocoa-containing end products produced by members in Germany from sustainable sources by 2020.

On the other hand, the Dutch government has committed to working with 100% certified cocoa by 2025. Three sustainability platforms have emerged in the Netherlands, namely: (Ingram, Judge, Luskova, Van Berkum, & van den Berg, July 2016)

- a) The Sustainable Trade Initiative (IDH): This is a government financed initiative aimed at accelerating and upscaling sustainable trade in support of the millennium development goals (MDGs). In its two cocoa programs from 2008 to 2015, the focus has been in scaling up the UTZ certification targeting the supply chains of the largest, major processing companies active in the Dutch cocoa and chocolate markets for an estimated 30% of the global market.
- b) Choco Working Group: This is composed of companies, trade unions, non-government and governmental organizations which signed a declaration of intent that all chocolate sold in the Netherlands by 2025 will be sustainable. Sustainability as defined in the declaration includes voluntary certification standards and, thus, has been a major incentive pushing the adoption of certification as the main demonstration of sustainability in the chain.
- c) The Association for Bakery and Confectionary Industry (Vereniging voor de Bakkerij- en Zoetwarenindustrie (VBZ): The group has made corporate social responsibility a priority for manufacturers of cookies, candy and chocolate, focusing on the raw material supply chain, innovation and employees and has been supporting its members to adopt sustainable practices.

In the United States, there is no national platform to promote sustainable cocoa but the Department of Labour through the Child Labor Cocoa Coordinating Group (CLGG) provides annual overviews of progress made by companies in tackling child labour. The CLGG has also commissioned the University of Chicago to conduct a survey on the incidence of the worst forms of child labour in cacao farms in West Africa. (Fountain & Huetz-Adams, 2018)

Collaboration on sustainability initiatives among major American chocolate companies is primarily through the CocoaAction convened by the World Cocoa Foundation. CocoaAction is a voluntary industry-wide strategy that aligns the world's leading cocoa and chocolate companies, origin Governments, and key stakeholders on regional priority issues in cocoa sustainability. The World Cocoa Foundation through the CocoaAction convenes the sector in order to align complementary roles and responsibilities, leverage scale and efficiency through collaboration, and catalyze efforts to accelerate sustainability in the cocoa sector. Participants to the CocoaAction include Barry Callebaut,

Blommer, Cargill, Ferrero, The Hershey Company, Mars, Incorporated, Mondelēz International, Nestlé, and Olam. (World Cocoa Foundation, 2016)

**Niche Market Certification.** Fairtrade and organic are the most popular niche market certification systems.

United Kingdom, Netherlands, Ireland, Switzerland, and the United States are among the biggest buyers of Fairtrade certified cocoa. European retailers Aldi and Lidl have entered into global agreements with Fairtrade to increase the use of Fairtrade cocoa in their confectionery category across the United Kingdom and Europe. (CBI, 2017; updated Mar 2019)

Mondelez International used to be the leading buyer of Fairtrade certified cocoa until it pulled out in 2016 to pursue its own Cocoa Life programme. Fairtrade though has been tapped to assist in the programme and monitor its progress.

Among the four most common cocoa certification systems (Rainforest, UTZ, organic, and Fairtrade), Fairtrade has the 2<sup>nd</sup> largest certified areas. It is estimated that about 17.32% of the area harvested to cocoa have been Fairtrade certified. Ivory Coast and Ghana have the largest areas of Fairtrade Certified Cocoa in the world followed by the Dominican Republic, Peru, and Ecuador. (International Trade Centre, 2019) The growing interest on Fair Trade certified cocoa beans was primarily a response to issues raised by consumers and civil organizations on the poor living conditions of farmers and their minimal share to retail price of chocolates.

The popularity of organic certification for cocoa beans follows the increasing demand for organic products in Europe and the United States. Organic chocolate is most popular in France. Other significant markets for organic cocoa beans in Europe are Germany and Italy. (CBI, 2017) In per capita consumption, the leading countries are Switzerland, Denmark, Sweden and Luxembourg. (CBI, January 2018)

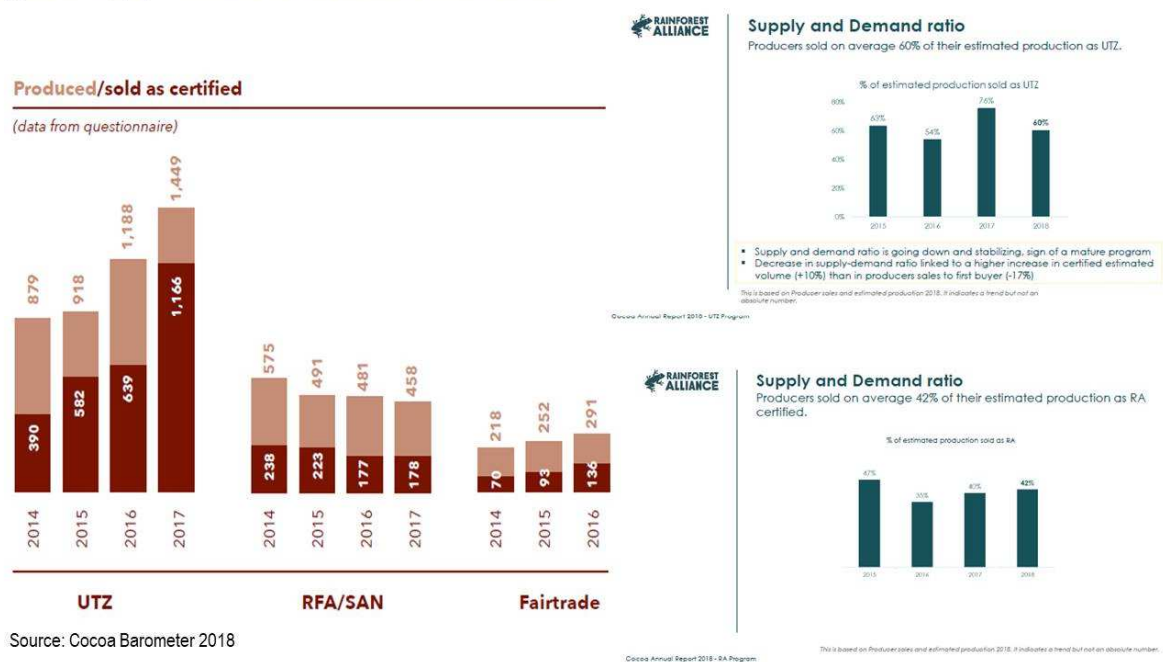
About 3.34% of total areas harvested to cocoa are organic certified. (International Trade Centre, June 2017) The Dominican Republic has the largest organic cocoa production area accounting for about 50% of total organic certified cocoa beans production in the world. Other suppliers of organic certified beans are Democratic Republic of Congo, Peru, Sierra Leone and Tanzania. (CBI, 2017).

The summary of area harvested and production volume by major cocoa VSS is presented in Table 4.

| <b>Table 5. Coverage of Major Cocoa VSS, 2017</b>                         |                       |          |                          |          |                         |
|---|-----------------------|----------|--------------------------|----------|-------------------------|
| <b>VSS</b>  | <b>Area Harvested</b> |          | <b>Production Volume</b> |          | <b>No. of Producers</b> |
|   | <b>In Hectares</b>    | <b>%</b> | <b>In MT</b>             | <b>%</b> |                         |
| Fairtrade   | 1,170,612             | 17.32    | 428,053                  | 12.42    | 263,825                 |
| Organic   | 362,800               | 3.34     | 131,860                  | 2.70     | No data                 |
| Rainforest Alliance   | 740,822               | 7.17     | 457,082                  | 9.86     | 206,096                 |
| UTZ   | 2,706,596             | 24.03    | 1,449,926                | 28.94    | 744,778                 |
| Source: ITC – The State of Sustainable Markets 2019; accessed 23 Nov 2019 |                       |          |                          |          |                         |

Based on available data, about 67% of VSS certified cocoa beans produced were sold as certified. The remaining 33% were bought as conventional beans. Statistics from Cocoa Barometer 2018 indicated that UTZ beans had the highest percentage sold as certified at 80%. This was followed by Fairtrade at 47% and Rainforest Alliance at 39%.

Figure 3. Supply – Demand of VSS certified cocoa beans



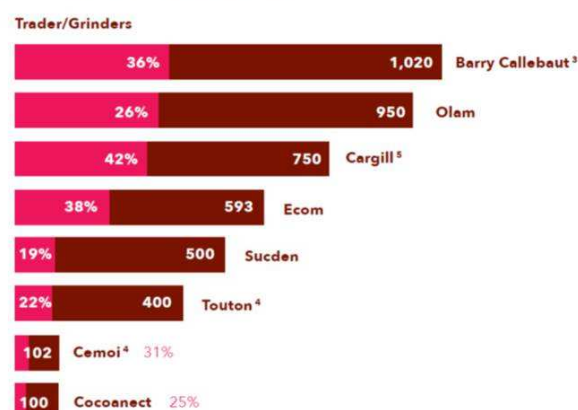
The 2018 cocoa annual report from UTZ indicated that percentage of total UTZ beans sold as certified decreased from 63% in 2015 to 60% in 2018. For Rainforest Alliance certified beans, percentage bought as certified decreased from 47% in 2015 to 42% in 2018. As per their reports, the decline in percentage sold as certified was due to faster increase in supply of certified beans than growth of producer sales to first tier buyers. Root causes and better understanding of the supply – demand trend of certified beans should be looked into during the Phase 2 study with a focus on the perspective of major industry players.

Figure 4 shows the percentage of certified beans (own program, UTZ, Rainforest, Fairtrade) and/or own project verified cocoa beans to total cocoa beans processed by major cocoa companies in 2017.

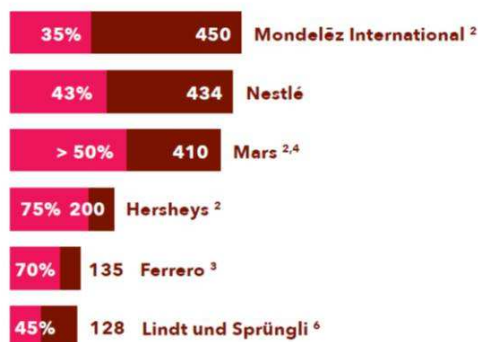
Figure 4. Percentage of certified cocoa beans used to total bean consumption, 2017

#### Certified cocoa\* / used cocoa 2017<sup>1</sup>

\* certified or own project verified cocoa



#### Chocolate Producers



(1) most companies referred to ICCO conversion rates: Cocoa butter 1.33, Cocoa paste/liquor 1.25, Cocoa Powder and cocoa cake 1.18  
(2) cocoa demand estimated  
(3) 1.9.16-31.8.17  
(4) 2016  
(5) 01.06.2016 – 31.05.2017  
(6) traceable and verified

Source: Cocoa Barometer 2018

## Philippines

In 2018, Philippines produced 7,983 MT of cocoa beans. On the average, about 55% of the local bean production is consumed domestically with tableya as the main product. About 35% to 45% of the beans are exported. Most of the bean exporters are consolidators/integrators (Kenemmer, CASCO, Puentespina Farms/Malagos Agri-Ventures, and PhilCocoa) of global companies. Kenemmer is the top exporter and primarily sells to Mars via Malaysia where grinding takes place. The remaining beans are used in the production of cocoa intermediate products for the export market. Export oriented processors use a mix of local and imported beans and powder due to lack of local supply.

| Table 6. Volume of cocoa beans exported from the Philippines, 2014 and 2018 |                |      |                |      |
|---|----------------|------|----------------|------|
| Importing Country   | 2014           |      | 2018           |      |
|   | Volume (in MT) | %    | Volume (in MT) | %    |
| Malaysia  | 1,731          | 88%  | 2,123          | 69%  |
| Singapore   | 160            | 8%   | 776            | 25%  |
| Vietnam   |                |      | 119            | 4%   |
| Others  | 85             | 4%   | 51             | 2%   |
| Total   | 1,976          | 100% | 3,069          | 100% |
| Source: ITC Trade Map – accessed 22 Nov 2019                                |                |      |                |      |

Philippine exports of cocoa beans increased from 1,976 MT in 2014 to 3,069 MT in 2018. About 69% of beans exported went to Malaysia. Singapore accounted for 25% of the export volume while Vietnam accounted for 4%. The remaining 2% went to countries like Indonesia, USA, Australia, United Kingdom, China, Hong Kong, and Japan. The Philippines only exported 1 MT of cocoa beans to Japan. In Malaysia and Singapore, the beans are generally delivered to grinders working with companies like Mars, Barry Callebaut, and Olam.

Chocolate and other preparations comprised the 2<sup>nd</sup> largest cocoa export product of the Philippines in terms of volume. In 2018, the country exported 1,512 MT of chocolates. About 41% were sold to Vietnam. Thailand accounted for 21% of the export volume. Chocolate exports to the United States



comprised 14% of the export volume. The remaining 24% were sold to countries with sizeable Filipino communities.

Main exporter of chocolates in the Philippines is Universal Robina. The company uses imported cocoa powder primarily from Malaysia and Indonesia. The company's strength lies in countlines (consumer products that are supplied to retailers in packages of multiple items and sold individually to customers) with Jack 'n' Jill Cloud 9 as its biggest brand. It also has presence in bagged selflines/softlines through its brand, Nips, which is the local version the imported brand M&M.

Exports to the United States comprise a mix of artisanal chocolates and the low-priced chocolates. The most popular artisanal chocolate producer is Malagos Agri-Venture whose beans and chocolates have won 29 international awards. Last January 2019, the company has become the first in the Philippines to join the list of recognized "heirloom" farms by the Heirloom Cacao Preservation Initiative (HCP). Other chocolatiers who are already exporting their products include Auro Chocolates, Antonio Pueo, Dalareich Food Products, and Chokolade de San Isidro. Auro Chocolates has set-up retail outlets in the United States and Japan.

As of 2017, about 750 hectares of areas harvested to cacao have achieved organic certification. There are three UTZ certified cocoa supply chain actors in the Philippines, namely: (UTZ, 2019)

- Alaska Milk Corporation: Manufacturer and distributor of milk and chocolate beverages
- Commodity Quest, Inc: The company is an importer and distributor of cocoa products. It started in the 1990s as an exclusive distributor of cocoa products from ADM Cocoa.
- BNC Food Ingredients: Importer and distributor of cocoa products

## **Vietnam**

Vietnam produces about 2,500 MT of cocoa beans. Cocoa bean exports decreased from 2,203 MT in 2014 to 1,382 MT in 2018. The decline was due to increase in production of single origin/artisanal chocolates.

| <b>Table 7. Volume of cocoa beans exported from the Vietnam, 2014 and 2018</b> |                       |             |                       |             |
|--|-----------------------|-------------|-----------------------|-------------|
| <b>Importing Country</b>   | <b>2014</b>           |             | <b>2018</b>           |             |
|  | <b>Volume (in MT)</b> | <b>%</b>    | <b>Volume (in MT)</b> | <b>%</b>    |
| Malaysia   | 1,995                 | 90.6%       | 1,228                 | 88.9%       |
| France   | 8                     | 0.4%        | 49                    | 3.5%        |
| Japan  | 127                   | 5.8%        | 42                    | 3.0%        |
| Indonesia  | 20                    | 0.9%        | 25                    | 1.8%        |
| Belgium  | 4                     | 0.2%        | 13                    | 0.9%        |
| USA  |                       |             | 9                     | 0.7%        |
| Others   | 49                    | 2.2%        | 16                    | 1.2%        |
| <b>Total</b>   | <b>2,203</b>          | <b>100%</b> | <b>1,382</b>          | <b>100%</b> |
| Source: ITC Trade Map – accessed 22 Nov 2019                                   |                       |             |                       |             |

Main market of the Vietnam cocoa beans in 2018 was Malaysia, which accounted for 89% of the export volume. Key buyers of beans are Cargill and ECOM with the former having a higher share of the volume. Beans purchased in behalf of the companies are delivered to grinding companies in Malaysia and Indonesia. Cargill is the major buyer of the UTZ certified beans produced by Vietnam. The company worked with Helvetas in the promotion of UTZ certification among the the Vietnamese cacao farmers.

In line with Circular No. 08/2013/TT-BCT issued in April 2013 which does not allow foreign enterprises to “organize the network of goods purchase in Vietnam for export,” Cargill and ECOM work through consolidators like Phu Binh, Lam Tung, and Huong Viet in the procurement of beans. (Nguyen L. , 2014)

Other importing countries of cocoa beans from Vietnam are France, Japan, Belgium, and the United States. Most likely, key buyers from these countries buy single origin and fine flavour beans.

Vietnam has three major chocolate processors, namely:

- a) Puratos Grand Place: a joint venture between Puratos Group and Grand-Place Holding. Both companies have roots in Belgium and made their first investment in Vietnam more than 20 years ago. The company launched a Cacao Trace programme to encourage cacao cultivation. The programme provides farmers with agricultural training and offers them seedling price subsidy. Likewise, farmers get a bonus of US\$ 170 for every ton of Cacao-Trace dried beans. The Chocolate Bonus reaches farmers through the Next Generation Foundation Cacao Foundation.
- b) Marou Chocolate: a French bean-to-bar company. The company specializes in single origin chocolate and, thus, is able to pay a higher price to farmers.
- c) Trong Duc Cocoa Limited Company: a UTZ certified company

Volume of chocolate exports from Vietnam increased from 1,369 MT in 2014 to 2,412 MT in 2018. Buyers were spread out in many countries with Belgium and China having the top shares at 18% and 13%, respectively.

| <b>Table 8. Volume of chocolates exported from the Vietnam, 2014 and 2018</b> |                       |             |                       |          |
|---|-----------------------|-------------|-----------------------|----------|
| <b>Importing Country</b>  | <b>2014</b>           |             | <b>2018</b>           |          |
|   | <b>Volume (in MT)</b> | <b>%</b>    | <b>Volume (in MT)</b> | <b>%</b> |
| Belgium   | 343                   | 25.1%       | 427                   | 17.7%    |
| China   | 162                   | 11.8%       | 309                   | 12.8%    |
| Afghanistan   |                       |             | 220                   | 9.1%     |
| Japan   | 216                   | 15.8%       | 165                   | 6.8%     |
| USA   | 62                    | 4.5%        | 156                   | 6.5%     |
| Australia   | 5                     | 0.4%        | 146                   | 6.1%     |
| Korea, Republic of  | 91                    | 6.6%        | 138                   | 5.7%     |
| Malaysia  | 10                    | 0.7%        | 118                   | 4.9%     |
| Thailand  | 48                    | 3.5%        | 109                   | 4.5%     |
| Philippines   | 1                     | 0.1%        | 106                   | 4.4%     |
| Taipei, Chinese   | 86                    | 6.3%        | 103                   | 4.3%     |
| Myanmar   | 10                    | 0.7%        | 86                    | 3.6%     |
| Others  | 335                   | 24.5%       | 329                   | 13.6%    |
| <b>Total</b>  | <b>1,369</b>          | <b>100%</b> |                       |          |
| Source: ITC Trade Map – accessed 22 Nov 2019                                  |                       |             |                       |          |

As of 2017, about 770 hectares of cacao farms spread over 940 farmers have achieved UTZ certification. On the other hand, about 438 hectares owned by 444 farmers have been Fairtrade certified.

| <b>Table 9. UTZ and Fairtrade certified cacao farms in Vietnam, 2017</b>  |                               |                            |
|---|-------------------------------|----------------------------|
| <b>Certification</b>  | <b>Area harvested (in ha)</b> | <b>Number of producers</b> |
| UTZ   | 770                           | 940                        |
| Fairtrade   | 438                           | 444                        |
| Source: ITC – The State of Sustainable Markets 2019; accessed 23 Nov 2019 |                               |                            |

The following are the UTZ certified cocoa supply chain actors in Vietnam: (UTZ, 2019)

- An Khai Produce Trading Co., Ltd.
- Asia Chemical Corporation
- Atlantic Commodities Vietnam Ltd (Acom)
- Dobra Asia Company Limited
- FrieslandCampina Ha Nam
- FrieslandCampina Vietnam
- Trong Duc Cocoa Limited Company

## B. COFFEE

Coffee is one of the most traded agricultural products with about 70% of the world production exported. As such and given its high visibility in the consumer market, the sector was an early adopter of voluntary sustainability standards.

Although there are about 79 countries producing coffee, the top four countries (Brazil, Vietnam, Colombia and Indonesia) accounted for 61% of global coffee production in 2017. (FAO, 2019) Latin America, led by Brazil and Colombia, dominates Arabica production, while Asia supplies the majority of Robusta production. Brazil is the top producer of Arabica in the world while Vietnam is the leading producer of Robusta.

While there are several different coffee species, global trade consists almost entirely of Arabica and Robusta. Arabica beans are considered to impart a superior taste and, therefore, fetch a higher market price relative to Robusta, which is more commonly destined for lower-value segments of the market such as instant coffee.

Coffee products range from green beans to ground coffee to instant/soluble coffee. In the world market, more than 90% of coffee exports continue to be in green form. World imports of green coffee beans increased from 102,517 thousand 60 kg bags in 2014 to 113,759 thousand 60 kg bags in 2018.

| <b>Table 10. World Imports of Green Coffee Beans</b> |                                |          |                                |          |
|--|--------------------------------|----------|--------------------------------|----------|
| <b>Importing Countries</b>                           | <b>2014/15</b>                 |          | <b>2018/19</b>                 |          |
|  | <b>Volume (1000 60 kg bag)</b> | <b>%</b> | <b>Volume (1000 60 kg bag)</b> | <b>%</b> |
| European Union                                       | 45,140                         | 44%      | 49,000                         | 43%      |
| United States  | 23,525                         | 23%      | 26,100                         | 23%      |
| Japan  | 7,185                          | 7%       | 7,500                          | 7%       |
| Canada   | 2,450                          | 2%       | 3,000                          | 3%       |
| Russia   | 2,240                          | 2%       | 2,700                          | 2%       |
| Switzerland  | 2,420                          | 2%       | 2,700                          | 2%       |
| Korea, South   | 2,150                          | 2%       | 2,400                          | 2%       |
| Algeria  | 2,165                          | 2%       | 2,300                          | 2%       |
| Others   | 15,412                         | 15%      | 18,059                         | 16%      |

| Table 10. World Imports of Green Coffee Beans   |                         |             |                         |             |
|---|-------------------------|-------------|-------------------------|-------------|
| Importing Countries   | 2014/15                 |             | 2018/19                 |             |
|   | Volume (1000 60 kg bag) | %           | Volume (1000 60 kg bag) | %           |
| <b>Total</b>  | <b>102,517</b>          | <b>100%</b> | <b>113,759</b>          | <b>100%</b> |
| Source: Production, Supply, and Distribution (PSD): United States Department of Agriculture - Foreign Agricultural Service (USDA-FAS); accessed 23 Nov 2019 |                         |             |                         |             |

The European Union remains the top importer with a 44% share in 2018. Among European Union countries, the top importers are Germany, Italy, and Belgium. United States ranks second with a 23% share. Completing the top five green bean importers are Japan, Canada, and Russia.

Consumption and utilization of green beans is concentrated in the northern hemisphere, where the largest share of value is captured through roasting, branding, packaging and retailing. The production, and especially the collection of the beans, is labour intensive while roasting can be seen as more capital intensive. Likewise, roasting has to be carried out close to the customer due to the short shelf-life of roasted beans.

Figure 5. Market Channel of Green Coffee Beans

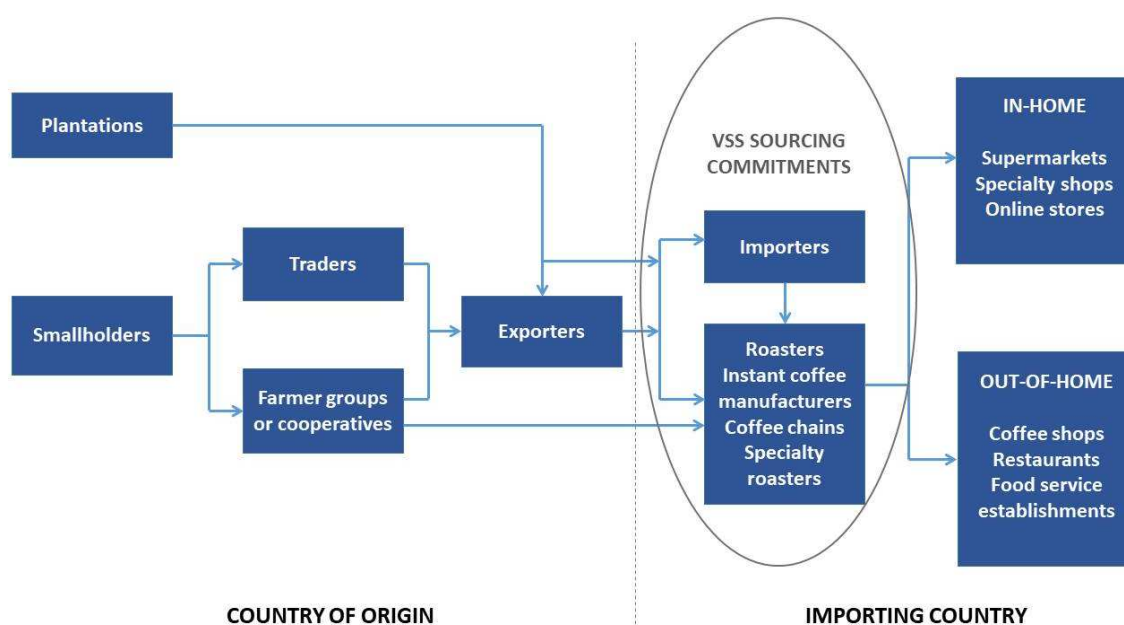


Figure 5 shows the generic market channels for green cocoa beans. A greater percentage of the export sales of green coffee beans especially the mainstream quality passes through importers or trading houses. The importers then sell the green beans to roasters (processors). The roasters sell coffee to retailers comprised of supermarkets, café shops, bars, and restaurants. Coffee is generally sold to consumers in the form of roasted coffee (beans or ground coffee) and soluble, instant coffee. Coffee is also traded on futures markets, with arabica coffee futures traded on the New York Board of Trade and Robusta futures in London on the Euronext-LIFFE market.

On the other hand, specialty coffee roasters generally import directly from the country of origin. Specialty coffee is sold based on its specific origin and the quality characteristics afforded to it by production in that location. Export volume is generally small but roasters pay a premium price. Governance in this chain is generally relational.

The importers play a significant role in the development of supply chains. They generally own a large part of the milling and storage facilities in most coffee producing countries. In some cases, they may also be engaged in coffee plantation management and operations. Traders also frequently play a role in assisting producers to meet certification requirements. The importers cover a wide range of qualities, varieties and certifications (4C, UTZ, Rainforest, Nespresso, Organic, Fairtrade, etc.).

Below are some of the major coffee traders and their sustainability initiatives as published in their websites and annual reports.

**Neumann Kaffee Gruppe (NKG) - Germany:** The company is the largest coffee trader in the world. It has 49 companies in 27 countries including Vietnam. Business segments include the following:

- Export through NKG companies in coffee producing countries such as Vietnam. Activities include buying of cherries/parchments, milling, blending, shipping, logistics from farm via mill to port, and price hedging and safeguarding against other risks. The company in Vietnam offers UTZ and 4C certified green coffee beans.
- Trading of bulk coffee beans serving 3,000 clients
- Trading of specialty beans
- Three farms in Brazil, Mexico and Uganda and farm management services in 10 countries
- Silo-storage, blending and steaming facility, globally renown coffee research and intelligence, hardware-consultants for mill-operations, global insurance and logistics coordination

NKG drives sustainability initiatives in 14 countries across Africa, Asia, Central and South America. As of 2018, sustainability initiatives covered 248,000 hectares spread over 131,000 farmers. In Vietnam, sustainability program reached 1,525 farmers. Their global sustainability program covers four strategic areas: (i) driving responsible business conduct within NKG; (ii) promoting responsible sourcing; (iii) safeguarding our environment; and (iv) enhancing dialogue and cooperation.

The company is a founder of International Coffee Partners and Coffee and Climate. It is also a partner of Sustainable Coffee Challenge, which was conceived by Conservation International and Starbucks and launched during the Paris climate meetings in 2015.

**ECOM Agroindustrial Corporation – Switzerland:** ECOM is active in all the stages of the coffee supply chain, and manages its own milling, warehousing, exporting and trading facilities. It has operations in major coffee producing countries including Vietnam (Atlantic Commodities Vietnam Ltd). It has some very limited roasting and grinding facilities.

The company in partnership with various development organizations and its Sustainable Management Services Foundation helps farmers improve production practices, enhance yields, and improve access to inputs and certification programmes under the various labels ECOM markets such as Rainforest Alliance, Utz, Organic, Starbucks C.A.F.E. Practices, Fairtrade, Nespresso AAA, and 4C. In 2006, ECOM started the ECOM Foundation that executes projects in coffee producing countries.

**Olam Specialty Coffee/Olam International – Singapore:** The company is 53.5% owned by Temasek Holdings and 17.4% by Mitsubishi Corporation. It sources from farmers in more than 20 countries. In Vietnam, procurement is spread across the country's three largest coffee growing provinces, namely Dak Lak, Lam Dong and Gia Lai. The company has a large wet-processing facility in Lam Dong for Arabica beans. The company has its own plantations in Brazil, Laos, Tanzania and Zambia which caters to consumer demand for single estate, certified and traceable coffees (Rainforest Alliance, UTZ, and 4C).

Olam has 2 major soluble coffee processing facilities - Café Outspan in Vietnam and SEDA Outspan in Spain. Café Outspan in Ho Chi Minh City is Southeast Asia's largest independent soluble coffee facility with annual production capacity of over 17,250 MT. The plant is BRC, Kosher, Halal, ISO 14001 certified.

Last March 2018, Japan International Cooperation Agency (JICA) signed \$75 million in a loan agreement with Café Outspan Vietnam Limited (COVL), a local subsidiary of Olam International Limited (OIL) in Vietnam focused on soluble coffee manufacturing, for the Coffee Value Chain Enhancement Project. The project is co-financed with the Asian Development Bank (ADB), which also committed \$88 million in total with Olam International and COVL. (Japan International Cooperation Agency, 2018)

Olam will improve inclusive and sustainable agricultural value chains that will benefit up to 20,000 smallholder farmers in Vietnam, as well as in Indonesia, Papua New Guinea and Timor-Leste. JICA's loan will be mainly for expanding the COVL coffee processing plant, and will contribute to agricultural development and the advancement of industry in Vietnam through enhancing the coffee value chain. (Japan International Cooperation Agency, 2018)

Sustainability initiatives are carried out via the Olam Livelihood Charter (OLC), which provides financial services and training in Good Agricultural Practices, fair labour practices, market access, quality, traceability, social investment, and environmental impact. The OLC also helps farmers achieve certification (4C, Rainforest Alliance, UTZ, Organic, Starbucks C.A.F.E. Practices, AAA Nespresso and others).

The company has a supplier code which provides a comprehensive set of conditions to support its goal to purchase coffee produced in a manner that is socially responsible, economically profitable and environmentally sustainable. As of December 2018, more than 75% of their regular suppliers (about 90% of volume traded) signed the code.

The company also has its Olam Farmer Information System. The tool helps in tracing their suppliers and share better information to partners.

In 2018, Olam launched AtSource with coffee supply chains in Brazil and Vietnam as the pilots. Through the AtSource, buyers of Olam can track the environmental and social performance of their product across 80 KPIs presented via a digital dashboard. on their sustainability journeys.

**ED&F Man-Volcafe – United Kingdom:** The company has been trading coffee since 1851. On the average, it trades about 11 million bags. The company has in-country operations in Vietnam and 14 other main coffee producing countries. It has an office in the Philippines but the focus is on sugar.

In 2014, Volcafe started its sustainable sourcing strategy which is anchored on strengthening Farmer Support Organizations (FSOs) to provide direct technical assistance to farmers. The FSOs assist farmers improve their farming practices and comply with requirements of major roaster codes of conduct and sustainable certification systems such as 4C/Global Coffee Platform, UTZ, Rainforest Alliance, Café Practices, Nespresso AAA, etc.

**Louis Dreyfus Company - London:** The company aims to increase the percentage of certified coffee sold to 17% by 2020. The strategy is built on two main pillars, namely the expansion of VSS coffee production and the implementation of sustainability initiatives at origins to support coffee farming communities. In 2016, Dreyfus launched farmer training projects in Colombia and Vietnam, with strong involvement of JDE and IDH. (Fountain & Huetz-Adams, 2018) The company works with some

of the following verification and certification schemes: 4C, Coffee and Farmer Equity/Starbucks, UTZ, Rainforest Alliance, and Fairtrade.

**Sucafin S.A - Switzerland:** The company sources from farms and operators that meet the following standards: UTZ, Rainforest Alliance, Fairtrade, and 4C. The company reinvests at least 1% of its annual profit into coffee communities and engages in a wide spectrum of sustainable development programs (poverty reduction, inclusiveness, environmental/landscape protection and climate change adaptation/resilience, human rights). (Fountain & Huetz-Adams, 2018) The company has on-site operations in Vietnam with Nestle as one of its clients.

**Mitsui Foods – Japan:** The company sources from main coffee producing countries such as Vietnam. Key verification and certification schemes supported by the company include the following: 4C, UTZ, Rainforest Alliance, Organic, Fairtrade, and Green Coffee.

**Coex Coffee International – United States:** The company sources from about 24 countries including Vietnam. Suppliers are required to sign a Supplier Code of Conduct agreement which, among other things, requires them to comply with all applicable laws, including but not limited to those laws regarding slavery and human trafficking. Coex audits suppliers to ensure compliance with its standards regarding labour and human rights abuses and the California Transparency in Supply Chains Act.

The company is verified and certified by the following organizations: (i) The Customs-Trade Partnership Against Terrorism (C-TPAT); (ii) Rainforest Alliance; (iii) 4C; (iv) UTZ; (v) Fairtrade USA; (vi) Fairtrade (Flo-Cert); (vii) CAFÉ Practices; and (viii) Organic Crop Improvement Association (OCIA) International.

The roasters, large retailers, and branded merchandisers set the production and quality standards for the rest of the industry. They influence the procurement strategies and specifications of importers.

Below are some of the major roasters and their sustainability initiatives as published in their websites, sustainability reports, and the Coffee Barometer 2018.

**Jacobs Douwe Egberts (JDE) - Netherlands:** The company is the largest roaster in the world. It uses approximately 9% of the world's coffee production. Products include roast and ground /filter coffee products, whole beans, portion sized coffee pads and capsules, instant coffee, coffee-mixes, ready-to drink and cold coffee beverages. JDE sells its products through supermarkets, hypermarkets, and mom and pop stores.

JDE's sustainability initiatives are carried out under its Common Ground program which has the following focus:

- Sustainability of land: climate change, soil, and water
- Equality of people: gender and youth inclusivity, child labour, and working conditions
- Prosperity of farmers: farm management, yield improvement, and income diversification

Common Ground is implemented in 11 countries. In Vietnam, Common Ground has 5 projects with an outreach of 20,939 smallholders. Focus areas of the projects are agrochemicals, climate change, and income diversification. The projects are being implemented in partnership with Louis Dreyfus Company, one of their key suppliers in Vietnam.

As of 2018, about 22% of the beans used by the company are verified and certified. JDE is the top buyer of UTZ certified coffee.

**Tchibo - Germany:** In 2017, the company sourced 26.4 % of their green coffee from coffee farms that are certified according to accredited international standards (e.g. Fairtrade, Rainforest Alliance, UTZ, Bio), or are validated to the baseline standards of the 4C Association. Tchibo adopts the baseline standards of the 4C Association Code of Conduct to organise coffee growers and raise their awareness of the benefits of sustainable coffee farming.

Since 2016, the company has increasingly shifted their commitment and financial resources from the purchase of 4C-validated grades to their own qualification programme Tchibo Joint Forces!® and the 'Mainstreaming Sustainable Coffee Production' dialogue process.

**Keurig Dr. Pepper – United States:** In 2020, the company is planning to source 100% of its green coffee according to the Keurig Green Mountain Responsible Sourcing Guidelines. In 2016, Keurig purchased 23,000 MT of certified coffee, mainly Fairtrade, with a small quantity of Rainforest Alliance and Organic.

**Ueshima Coffee Company (UCC) – Japan:** The company is active across Europe, Japan, and Asian markets. It manufactures both private and branded coffee. It also has its own chain of coffee shops. UCC directly manages coffee estates in Jamaica and Hawaii. The plantations are Rainforest Alliance certified.

The company purchases certified green coffee beans (UTZ, Rainforest, Fairtrade, and Organic) to cater mainly to the demand of EU retail clients. (Fountain & Huetz-Adams, 2018)

**Starbucks Company – United States:** About 99% of its green coffee volume is verified under the company's sustainability standard (C.A.F.E) Practices. The company established the Starbucks Farmer Support Centres to provide training to farmers. Starbucks facilitates access of farmers to loans to meet the standards and promote reforestation activities. In 2017, Starbucks launched the world's first sustainability bond, a \$1 billion debt financing instrument to improve social and environmental performance and grow the business.

Starbucks is a founding member of the Sustainable Coffee Challenge.

**Nestle – Switzerland.** The company is the 2<sup>nd</sup> largest roaster in the world and has the largest market share in the soluble coffee market. In 2018, the company procured a total of 843 000 MT of green coffee beans via trade channels and through its Farmer Connect program, which buys directly from farmers or via short and efficient value chains, within its Nescafé Plan and the Nespresso AAA Sustainable Quality™ Program, which is implemented in collaboration with Rainforest Alliance.

Philippines and Vietnam are among the suppliers of Nestle. In the Philippines, the company generally works with local intermediaries and farmer groups. In Vietnam, some of its first tier suppliers include Bero SG, Coex Coffee US, Cof. America US, COFCO Americas, Cty T. An Vinh VN, DNTN, Dreyfus CH, Dreyfus GB, Duc Nguyen VN, Ecom CH, Ecom JP, Ecom SG, ECTP Switzerland, Icona ES, Marubeni JP, Matter CH, Mercon US, Nedcoffee NL, Neumann VN, Olam SG, Quoc An Dak VN, Rothfos Corp. US, Rothfos DE, Sucafina CH, Thai Phuc VN, Touton CH, Volcafe CH, Volcafe JP, Volcafe US, and Volcafe VN.

About 55% of total Nescafé coffee is responsibly sourced and 93.9% for Nespresso. About 56% of the Nespresso coffee is sourced from farms that are Rainforest Alliance certified™ and Fairtrade-certified.



Nestle though its Nescafé Plan targets to monitor and improve labor rights in at least two coffee-sourcing countries by 2020. As of 2019, the company has started collaboration with Verite and Project for Public Spaces to map labour conditions in Mexico as basis for more targeted activities and remediation actions to improve labour conditions.

**J.M. Smucker Company – United States.** Smucker brands including Folgers, Dunkin’ Donuts, Café Bustelo, and Café Pilon. It is the 3<sup>rd</sup> largest roaster in the world. On the average, company sourced 10% of its retail coffee from certified green coffee sources (Rainforest and UTZ). The Dunkin’ Donuts Dunkin’ Dark® coffee contains 30 percent Rainforest Alliance Certified™ coffee.

The company’s sustainability strategy is built on three pillars: (i) smallholder support; (ii) responsible sourcing; and (iii) integrated environmental efforts.

The company has trading offices in Brazil and Vietnam. It implements programs in collaboration with partners of USAID.

Large retailers generally prefer a chain of custody certification (e.g., UTZ and Rainforest Alliance) for all links in the supply chain, comprising all traders and processors, or a traceability system that can verify if a labelled coffee product comes from a specified source. (Fountain & Huetz-Adams, 2018) As discussed under cocoa, retailers also may have their own codes of conduct which were developed in collaboration with organizations involved in voluntary sustainability standards.

Green coffee is graded and classified for export with the ultimate aim of producing the best cup quality and, thereby, securing the highest price. However, there is no universal grading and classification system for coffee. Grading and classification are usually based on some of the following criteria: (i) altitude and/ region; (ii) botanical variety; (iii) preparation process (wet or dry/washed or natural; (iv) bean size, shape, and colour; (v) number of defects; and (vi) density of beans.

The following are the key legal or mandatory requirements:

1. Both the European Union and the United States require that beans must be traceable throughout the entire supply chain to guarantee food safety, allow appropriate action in cases of unsafe food and to limit risks of contamination.

The Food Safety Modernization Act of the United States requires the inclusion of preventive control measures in food safety management plan.

The EU directive on Hygiene and Foodstuff (93/43/EC) prescribes that the HACCP is mandatory to companies which process, treat, pack, transport, distribute or trade foodstuff. It also applies to foreign suppliers. Hygiene requirements based on the HACCP system are legally binding for products from outside the EU. Farmers (“primary producers”) are encouraged to implement and certify for the HACCP.

In Japan, sale of products that contain harmful or toxic substances or those with poor hygiene is prohibited under the Food Sanitation Act. The Product Liability Act stipulates the liability of manufacturers for damages to consumers in association with product defects. Importers are included in the category of manufacturers. Coffee sold as processed food is subject to the Product Liability Act and care should be taken for safety management in relation to food-poisoning outbreaks, contents, and containers and packaging.

2. Coffee beans with pesticide residue levels above the allowed tolerances are rejected. Table 10 shows a comparison of MRLs of common pesticides used in coffee between Codex Alimentarius and national standards of the top 3 coffee bean importing countries.

| <b>Table 11. Comparison of MRLs of common pesticides used in coffee between Codex Alimentarius and national standards of European Union, Japan, and the United States</b> |                    |                  |                |       |               |
|---|--------------------|------------------|----------------|-------|---------------|
| Pesticides  | Codex Alimentarius | Year of Adoption | European Union | Japan | United States |
| Aldicarb  | 0.10 mg/kg         |                  | 0.10           | 0.10  | 0.10          |
| Azoxystrobin  | 0.03 mg/kg         | 2014             | 0.03           | 0.05  |               |
| Boscalid  | 0.05 mg/kg         | 2010             | 0.05           | 0.05  |               |
| Buprofezin  | 0.40 mg/kg         | 2015             | 0.05           | 0.01  |               |
| Carbendazim   | 0.10 mg/kg         | 2001             | 0.10           | 0.10  |               |
| Carbofuran  | 1.00 mg/kg         | 1999             | 0.05           | 1.00  | 0.10          |
| Chlorantraniliprole   | 0.05 mg/kg         | 2014             | 0.02           | 0.40  |               |
| Chlorpyrifos  | 0.05 mg/kg         | 2003             | 0.20           | 0.05  | 0.10          |
| Clothianidin  | 0.05 mg/kg         | 2011             | 0.05           | 0.05  |               |
| Cyantraniliprole  | 0.05 mg/kg         | 2016             | 0.05           | 0.05  |               |
| Cyhalothrin (includes lambda-cyhalothrin)   | 0.01 mg/kg         | 2016             | 0.05           | 0.01  |               |
| Cypermethrins (including alpha- and zeta-cypermethrin)  | 0.05 mg/kg         | 2009             | 0.10           | 0.05  | 0.05          |
| Cyproconazole   | 0.07 mg/kg         | 2014             | 0.10           | 0.10  |               |
| Cyproconazole (Coffee beans, roasted )  | 0.10 mg/kg         | 2014             | 0.10           | 0.10  |               |
| Diquat  | 0.02 mg/kg         | 2014             | 0.02           | 0.05  |               |
| Disulfoton  | 0.20 mg/kg         | 1995             | 0.05           | 0.20  | 0.20          |
| Endosulfan  | 0.20 mg/kg         | 2007             | 0.10           | 0.10  |               |
| Fenpropathrin   | 0.03 mg/kg         | 2015             | 0.02           | 0.01  |               |
| Flutriafol  | 0.15 mg/kg         | 2012             | 0.15           | 0.20  |               |
| Glufosinate-Ammonium  | 0.10 mg/kg         | 2013             | 0.10           | 0.10  |               |
| Haloxypop   | 0.02 mg/kg         | 2010             | 0.05           | 0.01  |               |
| Imidacloprid  | 1.00 mg/kg         | 2009             | 1.00           | 0.70  | 0.80          |
| Permethrin  | 0.05 mg/kg         |                  | 0.10           | 0.05  |               |
| Phorate   | 0.05 mg/kg         | 2006             | 0.05           | 0.02  | 0.02          |
| Propiconazole   | 0.02 mg/kg         | 2008             | 0.02           | 0.10  |               |
| Pyraclostrobin  | 0.30 mg/kg         | 2007             | 0.30           | 0.30  |               |
| Saflufenacil  | 0.01 mg/kg         | 2012             | 0.03           | 0.03  |               |
| Spirodiclofen   | 0.03 mg/kg         | 2010             | 0.05           | 0.03  |               |
| Tebuconazole  | 0.10 mg/kg         | 2012             | 0.10           | 0.20  | 0.30          |
| Terbufos  | 0.05 mg/kg         | 2006             | 0.01           | 0.05  | 0.05          |
| Thiamethoxam  | 0.20 mg/kg         | 2011             | 0.20           | 0.20  | 0.05          |
| Triadimefon   | 0.50 mg/kg         | 2008             | 0.05           | 0.05  |               |
| Triadimenol   | 0.50 mg/kg         | 2008             | 0.05           | 0.5   |               |
| Source: International Coffee Organization, 2018   |                    |                  |                |       |               |

3. For roasted coffee beans and ground roasted coffee, the maximum level of Ochratoxin A (OTA) in the European Union is set at 5 µg/kg while the maximum is set at 10 µg/kg for soluble coffee (instant coffee). (CBI Ministry of Foreign Affairs, 24 April 2019)
4. A phytosanitary inspection certificate issued by the plant protection authority must be submitted indicating the absence of pathogen or pest contamination.
5. The beans must be properly packed. Green coffee beans of standard quality may be packed in container sized bulk flexi-bags. These hold roughly 20 tonnes of green coffee beans. Coffee beans may also be transported in t 60 kg jute sacks, which will result in containers of a net volume of around 17–19 tonnes of coffee. Materials such as Grainpro or other innovative materials can be used to pack specialty coffees. (CBI Ministry of Foreign Affairs, April 2019)
6. Bulk packaging labels of coffee beans exported to the European Union should contain the following information in order to ensure traceability of individual batches: (i) product name; (ii) International Coffee Organisation (ICO) identification code (xxx – xxxx – xxxx; 1<sup>st</sup> three numbers identifies the country of origin, the 2<sup>nd</sup> set of four numbers identifies the exporter, and the 3<sup>rd</sup> set of three numbers refers to the individual shipment to which the bags in question belong); (iii) country of origin; (iv) grade; (v) net weight in kg; and (vi) certified coffee: name/code of the inspection body and certification number.

Shipment labelling requirement is more or less the same in the United States and Japan.

In terms of voluntary standards, ISO 9000 standards on quality management have become a norm among coffee companies. At the farm level, GlobalGAP is increasingly being used as a means to demonstrate food safety compliance and traceability.

As can be gleaned from the brief description of buyers, the most notable coffee VSS include Nespresso's AAA, 4C Association, Starbucks C.A.F.E. Practices, Fairtrade, Organic, Rainforest Alliance and UTZ. Importers and processors generally adopt a mix of VSS as differentiation strategy and to cater to different market segments.

Among the public voluntary standards, 4C has the largest area and production volume. Certified 4C farms had the highest average productivity.

| <b>Table 12. Coverage of Major Coffee Public VSS, 2017</b> |   |                    |          |                          |          |                         |
|--|---|--------------------|----------|--------------------------|----------|-------------------------|
| <b>VSS</b>   | <b>Area Harvested</b>                                       |                    |          | <b>Production Volume</b> |          | <b>No. of Producers</b> |
|  | <b>Top 5 Countries</b>                                      | <b>In Hectares</b> | <b>%</b> | <b>In MT</b>             | <b>%</b> |                         |
| 4C   | Brazil<br>Colombia<br>Indonesia<br><b>Vietnam</b><br>Mexico | 1,630,546          | 16.35    | 2,406,680                | 27.26    | 526,633                 |
| Fairtrade  | Colombia<br>Peru<br>Ethiopia<br>Mexico<br>Brazil            | 938,158            | 12.65    | 633,854                  | 8.33     | 762,392                 |
| Organic  | Mexico<br>Ethiopia<br>Peru<br>Tanzania<br>Uganda            | 850,025            | 11.98    | 478,515                  | 8.29     | No data                 |

| <b>Table 12. Coverage of Major Coffee Public VSS, 2017</b>                |  |                    |          |                          |          |                         |
|---|--|--------------------|----------|--------------------------|----------|-------------------------|
| <b>VSS</b>  | <b>Area Harvested</b>                                    |                    |          | <b>Production Volume</b> |          | <b>No. of Producers</b> |
|   | <b>Top 5 Countries</b>                                   | <b>In Hectares</b> | <b>%</b> | <b>In MT</b>             | <b>%</b> |                         |
| Rainforest Alliance   | Brazil<br>Colombia<br>Ethiopia<br>Peru<br>India          | 411,415            | 3.43     | 557,911                  | 4.89     | 204,329                 |
| UTZ   | Brazil<br>Peru<br>Colombia<br>Honduras<br><b>Vietnam</b> | 592,977            | 6.76     | 857,803                  | 9.99     | 226,015                 |
| Source: ITC – The State of Sustainable Markets 2019; accessed 23 Nov 2019 |  |                    |          |                          |          |                         |

UTZ ranked second in terms of production volume but came in 4<sup>th</sup> in terms of area harvested. UTZ certified farms have the 2<sup>nd</sup> highest average farm productivity after 4C compliant farms. 4C and UTZ are very much similar and have a strong focus on farm productivity.

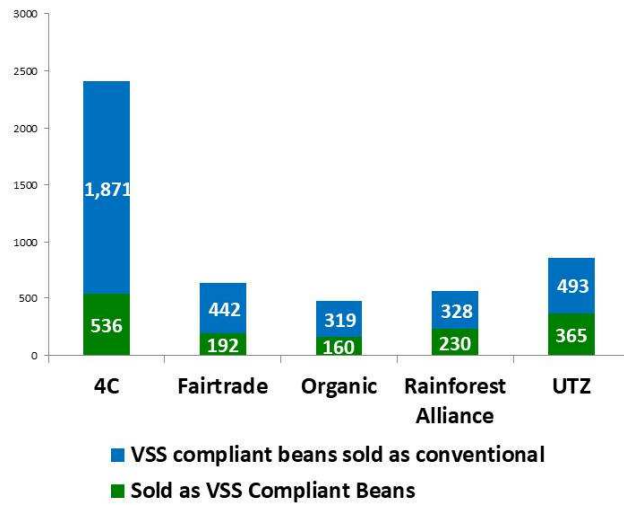
Fairtrade had the 2<sup>nd</sup> highest area harvested but ranked third in terms of production volume. Organic certified farms had the third highest area harvested but the lowest production volume. Organic farms had the lowest average farm productivity at 0.56 MT. Fairtrade farms had an average productivity of 0.68 MT.

Rainforest had the lowest number of hectareage but ranked 4<sup>th</sup> in terms of production volume. Rainforest certified farms had the 3<sup>rd</sup> highest average farm productivity.

Volume of VSS compliant beans in 2017 was about 59% of the total global coffee production. However, only about 30% of the VSS compliant beans were sold as such. In short, supply of VSS compliant beans appears to be higher than effective demand.

As can be gleaned from Figure 6, 4C verified products had the lowest percentage of beans sold as VSS verified. Reports indicate that the Meo Carbon Solutions who has taken over the operations of 4C is currently upgrading the auditing and verification systems. Likewise, many of the industry players it seems feel that verification alone is not sufficient. Likewise, with most of the players having multiple certifications, it seems that strength of certification as market differentiation has to some extent been reduced.

**Figure 6. Supply – Demand of VSS Coffee Beans, 2017**  
Volume: In thousand MT



Sources:

VSS Compliant Bean Production: ITC Sustainability Map

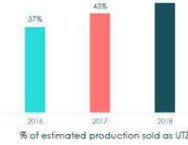
Sold as VSS compliant beans: Coffee Barometer

VSS compliant beans sold as conventional: Total Production – Sold as VSS compliant beans



#### Supply – Demand trend

Producers sold on average 47% of their estimated production as UTZ.



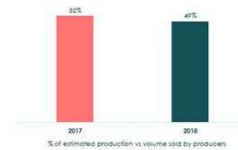
Increasing trend since 2016

This is based on Producers sales and estimated production 2018. It indicates a trend but not an absolute number.



#### Supply & Demand trend

Volumes sold by producers represent, on average, 50% of the estimated Rainforest Alliance Certified™ Coffee production.

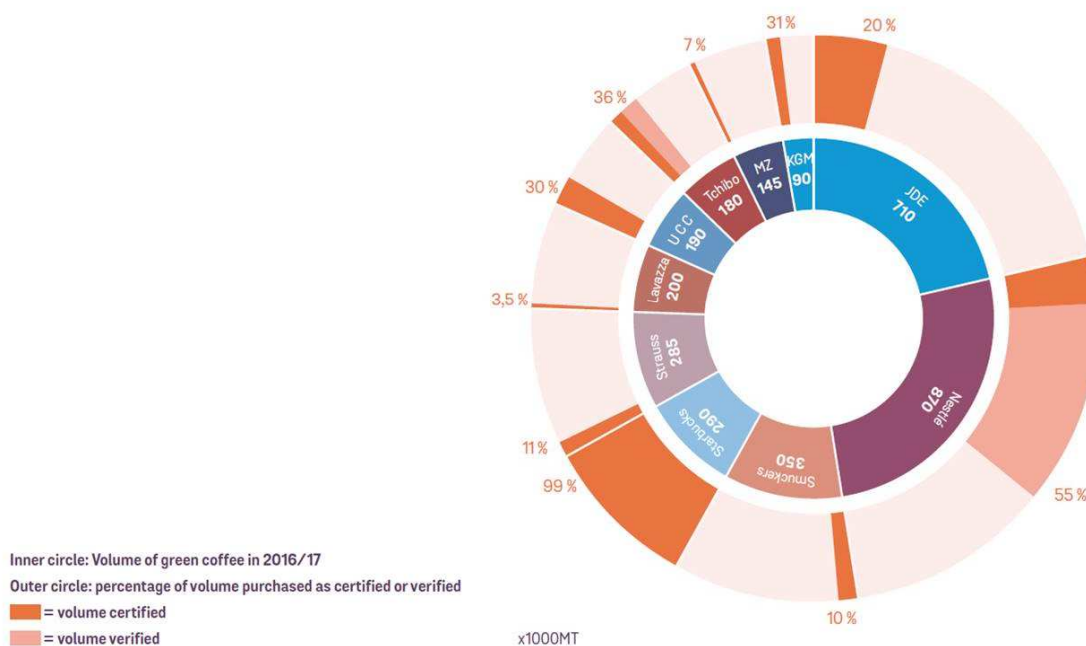


Volumes sold are based on Aggregators and Transaction Certificates. Estimated production is based on the Certification information as indicated by Certification Bodies for Certificates valid on December 31<sup>st</sup> 2018. This ratio indicates a trend but not an absolute number.

Office Annual Report 2018 – RA Program

Figure 7 shows the percentage share of verified/certified beans used by top roasters in their production in 2017. Outside of private voluntary standards (Starbucks and Nestle), percentage share of VSS beans to total beans used ranged from 3.5% to 36%. Given that there appeared to be sufficient supply of VSS verified/certified beans in the market, a better understanding is needed on why roasters were not using more certified/verified beans in their production.

**Figure 7. Top 10 coffee roasters: market share and demand for VSS in 2017**



## Philippines

During the period 2014 to 2018, Philippines produced an annual average of 67,802 MT of dried cherries with about 65% to 70% comprised of Robusta. Philippine coffee production during the five-year period declined at a compound annual growth rate of 5%.

The country is a minor exporter of coffee but it is one of the major importers of coffee products especially for instant coffee. A greater percentage of Philippine exports are comprised by coffee extracts and preparations. Volume of exports though for these processed products has been declining due to increase in local demand and declining coffee production.

| <b>Table 13. Philippine Coffee Exports, 2014 and 2018</b> |                       |             |                       |             |
|---|-----------------------|-------------|-----------------------|-------------|
| <b>Product/Importing Country</b>                          | <b>2014</b>           |             | <b>2018</b>           |             |
|   | <b>Volume (in MT)</b> | <b>%</b>    | <b>Volume (in MT)</b> | <b>%</b>    |
| <b>Coffee Beans: HS 090111</b>                            | <b>1</b>              | <b>100%</b> | <b>16</b>             | <b>100%</b> |
| Japan   |                       |             | 13                    | 81%         |
| USA   |                       |             | 2                     | 13%         |
| France  |                       |             | 1                     | 6%          |
| Others  | 1                     | 100%        |                       |             |
| <b>Roasted Coffee: HS 090121</b>                          | <b>1</b>              | <b>100%</b> | <b>5</b>              | <b>100%</b> |
| Saudi Arabia  |                       |             | 5                     | 100%        |
| Others  | 1                     | 100%        |                       |             |
| <b>Extracts: HS 210111</b>                                | <b>1,381</b>          | <b>100%</b> | <b>814</b>            | <b>100%</b> |
| Nigeria   | 430                   | 31%         | 162                   | 20%         |
| Taipei, Chinese   | 13                    | 1%          | 151                   | 19%         |
| Hong Kong, China  | 234                   | 17%         | 64                    | 8%          |
| China   | 179                   | 13%         | 56                    | 7%          |
| Côte d'Ivoire   |                       |             | 55                    | 7%          |
| Others  | 525                   | 38%         | 326                   | 40%         |
| <b>Preparations: HS 210112</b>                            | <b>21</b>             | <b>100%</b> | <b>11</b>             | <b>100%</b> |
| Marshall Islands  |                       |             | 4                     | 36%         |
| USA   |                       |             | 3                     | 27%         |
| United Arab Emirates                                      |                       |             | 2                     | 18%         |
| Qatar   |                       |             | 1                     | 9%          |
| Nigeria   | 21                    | 100%        |                       |             |
| Others  |                       |             | 1                     | 9%          |

Source: ITC Trade Map – accessed 23 Nov 2019

Nestle is the largest buyer of Robusta beans in the Philippines. The beans are processed in its processing facility in the country. The direction of the Robusta coffee subsector in the country is very much influenced by Nestle. The company provides training to farmers.

About 3.4% of the coffee production in the Philippines was 4C compliant. This was primarily initiated by Nestle. Organic certified beans comprised 0.22% of the total national coffee production.

| <b>Table 14. Uptake of VSS in the Philippines</b> |                               |          |                       |          |                         |
|---|-------------------------------|----------|-----------------------|----------|-------------------------|
| <b>VSS</b>  | <b>Area Harvested (in ha)</b> | <b>%</b> | <b>Volume (in MT)</b> | <b>%</b> | <b>No. of Producers</b> |
| 4C  | 6,851                         | 6.07     | 2,108                 | 3.4      | 4,399                   |
| Organic   | 250                           | 0.22     | 135                   | 0.22     | No data                 |

Source: ITC – The State of Sustainable Markets 2019; accessed 23 Nov 2019

## Vietnam

In 2018, Vietnam had a total coffee production of 1,542,398 MT comprised mainly of Robusta. Vietnam accounted for about 17% of the global coffee production.

About 92% of Vietnam's coffee production is sold in the export market with coffee beans comprising the greater percentage. As can be gleaned from Table 14, beans are mainly exported to developed economies. Main buyer of the processed coffee products (extracts and preparation) is the Philippines.

| <b>Table 15. Top Importers of Vietnamese Coffee Products</b>              |                       |
|---|-----------------------|
| <b>Product/Importing Country</b>  | <b>Volume (in MT)</b> |
| <b>Coffee Beans: HS 090111</b>  |                       |
| Germany   | 276,860               |
| United States of America  | 197,325               |
| Italy   | 129,982               |
| Spain   | 127,211               |
| Japan   | 98,188                |
| Russia  | 95,506                |
| <b>Decaffeinated coffee: HS 090112</b>                                    |                       |
| USA   | 12,166                |
| Spain   | 8,723                 |
| Malaysia  | 1,316                 |
| Germany   | 1,147                 |
| United Kingdom  | 902                   |
| <b>Roasted Coffee: HS 090121</b>  |                       |
| China   | 3,970                 |
| United States of America  | 737                   |
| France  | 516                   |
| <b>Extracts: HS 210111</b>  |                       |
| Philippines   | 13,126                |
| Japan   | 4,730                 |
| Russian Federation  | 4,387                 |
| Indonesia   | 3,800                 |
| Myanmar   | 2,982                 |
| <b>Preparations: HS 210112</b>  |                       |
| Philippines   | 26,194                |
| China   | 5,991                 |
| Taipei, Chinese   | 1,321                 |
| USA   | 1,091                 |
| Source: ITC – The State of Sustainable Markets 2019; accessed 23 Nov 2019 |                       |

4C is the most adopted VSS in Vietnam. In 2017, about 28.12% of the coffee produced by Vietnam was 4C verified. About 9.18% of the beans produced in 2017 were UTZ certified while 0.68% were Rainforest certified. Niche certifications such as Fairtrade and Organic made up 0.34 and 0.01% of total bean production.

| <b>Table 16. Uptake of VSS in Vietnam</b>                                 |                                   |          |                           |          |                             |
|---|-----------------------------------|----------|---------------------------|----------|-----------------------------|
| <b>VSS</b>  | <b>Area Harvested<br/>(in ha)</b> | <b>%</b> | <b>Volume<br/>(in MT)</b> | <b>%</b> | <b>No. of<br/>Producers</b> |
| 4C  | 123,637                           | 20.43    | 433,746                   | 28.12    | 73,818                      |
| Fairtrade   | 1,385                             | 0.23     | 5,202                     | 0.34     | 738                         |
| Organic   | 45                                | 0.01     | 110                       | 0.01     |                             |
| Rainforest  | 5,414                             | 0.45     | 21,109                    | 0.68     | 5,083                       |
| UTZ   | 43,929                            | 7.26     | 141,610                   | 9.18     | 31,086                      |
| Source: ITC – The State of Sustainable Markets 2019; accessed 23 Nov 2019 |                                   |          |                           |          |                             |

Sales of UTZ certified beans increased from 61,000+ MT in 2017 to 94,156 MT in 2018. (Rainforest Alliance, May 2019) About 34% of the UTZ certified beans were sold as conventional beans.

## C. COCONUT

### 1. Copra Coconut Oil

Copra coconut oil is the main coconut product traded in the global market. Philippines is consistently the top exporter of crude coconut oil. In 2018, Philippines accounted for 58% of the world export volume. The other significant exporter of crude coconut oil is Indonesia, which had a 32% share of the total world export volume in 2018.

For HS code 151319 which is primarily refined, bleached, and deodorized oil (RBDO) and cochin, Philippines was the top exporter in 2014, 2015, and 2017. Indonesia had the largest share of the exports in 2016 and 2018. In 2018, Indonesia's total export volume was just 0.55% higher than the Philippines.

| <b>Table 17. Top Exporters of Coconut Oil in 2018</b> |                       |   |                       |
|---|-----------------------|---|-----------------------|
| Product: 151311 Crude coconut oil                     |                       | Product: 151319 Coconut oil and its fractions, whether or not refined, but not chemically mod |                       |
| <b>Exporting Country</b>                              | <b>Volume (in MT)</b> | <b>Exporting Country</b>  | <b>Volume (in MT)</b> |
| Philippines   | 625,635               | Indonesia   | 330,274               |
| Indonesia   | 344,996               | Philippines   | 328,472               |
| Malaysia  | 28,363                | Netherlands   | 205,796               |
| Papua New Guinea                                      | 22,252                | Malaysia  | 93,551                |
| Sri Lanka   | 9,415                 | USA   | 18,616                |
| Source: ITC Trade Map; accessed 20 December 2019      |                       |   |                       |

As a bloc, Europe is the top importer of crude coconut oil with Netherlands as the main importing country. United States is the 2<sup>nd</sup> largest importer of crude coconut oil.

For RBDO and cochin, top importer in 2018 was the United States. Other major importers include China, Republic of Korea, Germany, Belgium, and Japan.

| <b>Table 18. Top Importers of Coconut Oil in 2018</b> |                       |   |                       |
|---|-----------------------|---|-----------------------|
| Product: 151311 Crude coconut oil                     |                       | Product: 151319 Coconut oil and its fractions, whether or not refined, but not chemically mod |                       |
| <b>Importing Country</b>                              | <b>Volume (in MT)</b> | <b>Exporting Country</b>  | <b>Volume (in MT)</b> |
| Netherlands   | 358,967               | USA   | 271,389               |



| <b>Table 18. Top Importers of Coconut Oil in 2018</b> |         |   |         |
|---|---------|---|---------|
| Product: 151311 Crude coconut oil                     |         | Product: 151319 Coconut oil and its fractions, whether or not refined, but not chemically mod |         |
| USA   | 210,061 | China   | 136,956 |
| Malaysia  | 171,198 | Korea, Republic of  | 56,586  |
| Germany   | 145,670 | Germany   | 52,540  |
| Italy   | 48,732  | Belgium   | 41,613  |
| Spain   | 39,890  | Japan   | 40,088  |
| Source: ITC Trade Map; accessed 20 December 2019      |         |   |         |

The following are the general mandatory standards of importing countries:

- a) Polycyclic aromatic hydrocarbons (PAH), which come from the smoke-drying process of copra, are considered to be extremely toxic carcinogenic substances. In the European Union, a limit of 20 ppb applies for coconut oil. It seems that no maximum limits for PAH contents of foodstuffs have been introduced into the United States legislation.
- b) Pesticide level should not exceed the Maximum Residue Levels (MRLs).
- c) Exporters should maintain a permanent procedure, or procedures, based on the Hazard Analysis and Critical Control Points (HACCP) principles. If sales are to be made directly with food manufacturers, it is necessary to have a certified food safety management system recognised by the Global Food Safety Initiative, such as the ISO 22000, British Retail Consortium (BRC), or the International Food Standards (IFS).

The copra coconut oil sector is bulk oriented with limited value adding, branding or niche marketing occurring. Cargill, in collaboration with BASF and Procter and Gamble with the support of GIZ and PCA, is the first company to implement coconut oil sustainability standards, as of end of project in October 2019, 1,250 farmers in the Philippines have achieved Rainforest Alliance certification. A mass balance chain of custody has been set-up. Volume of sustainable certified coconut oil produced as of end of project was at 1,705 MT. The copra is produced using the kukum dryer. The crude and refined oil produced by Cargill is further processed by BASF and Procter and Gamble for ingredients in the home and personal care and in the nutrition and health markets.

Another multinational buyer of coconut oil is Olenex, which is owned by ADM and Wilmar. The company, so far, has not launched any sustainability initiatives in the coconut oil subsector but is actively in promoting voluntary sustainability standards in the palm oil.

## 2. Desiccated Coconut

| <b>Table 19. Top Exporters and Importers of Desiccated Coconut, 2018</b> |                       |                          |                       |
|--|-----------------------|--------------------------|-----------------------|
| <b>Top Exporters</b>   |                       | <b>Top Importers</b>     |                       |
| <b>Exporting Country</b>   | <b>Volume (in MT)</b> | <b>Importing Country</b> | <b>Volume (in MT)</b> |
| Philippines  | 121,547               | USA                      | 48,069                |
| Indonesia  | 109,179               | Netherlands              | 31,341                |
| Singapore  | 25,423                | Singapore                | 25,272                |
| Sri Lanka  | 24,583                | Germany                  | 19,454                |
| Dominican Republic   | 16,999                | United Kingdom           | 15,377                |
| Source: ITC Trade Map; accessed 20 December 2019                         |                       |                          |                       |

Philippines is the largest supplier of desiccated coconut followed by Indonesia. Top importer is United States followed by Netherlands and Singapore. The largest consumer of desiccated coconuts is the confectionery industry and a smaller quantity goes to re-packing for retail sale.

The following are the mandatory requirements: ( CBI Ministry of Foreign Affairs, 16 April 2019)

- a) The basic quality requirements for desiccated coconuts are:
  - Colour: natural white to light creamy.
  - Texture: free-flowing and free from yellow specks.
  - Flavour: distinctive coconut flavour without off-flavours due to deterioration or absorption of extraneous substances.
  - Odour: the characteristic odour of the product, not mouldy nor cheesy, smoky, fermented nor rancid and no undesirable odour.
  - Oil content: high fat - 60% m/m of oil or more; low-fat – 45% to 55% m/m of oil
- b) Label should indicate the oil content of the product. When applicable, the name may indicate the sizing of the product. Information for non-retail containers shall be given either on the container or in accompanying documents.
- c) Packaging should protect the organoleptic and quality characteristics of the product. The most common type of bulk packaging is the craft paper bag with inner sealed polythene to keep out the moisture. The most common standard bag size is 25 kg but bags of 8 kg, 10 kg and 50 kg are also used.
- d) Harmful residues in pesticides are banned.
- e) Food safety management must be based on HACCP principles.

Organic and fair-trade certification schemes are slowly gaining some market in the European Union and US markets. An increasing number of buyers are requesting for assurance that monkeys are not used to harvest coconuts. Livelihoods Venture, a Paris-based non-government organization, is currently working with Franklin Baker and Mars in promoting improved livelihoods for farmers and decent work conditions. The project though is not targeting certification at this time.

Lead firms in the Philippines such as Franklin Baker and Peter Paul have organic and fair trade certifications.

### 3. Virgin Coconut Oil

| <b>Table 20. Export Volume and Value of Philippine VCO Exports, 2013 to 2017</b> |             |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
|  | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>CAGR</b> |
| Volume (in MT)   | 7,061       | 26,421      | 64,316      | 41,092      | 27,719      | 41%         |
| Value (FOB US\$)   | 28,149,000  | 116,732,000 | 279,674,000 | 118,672,764 | 69,612,822  | 25%         |
| Unit Price (FOB US\$/MT)   | 3,986.55    | 4,418.15    | 4,348.44    | 2,887.96    | 2,511.37    | -11%        |
| Source: PCA  |             |             |             |             |             |             |

Philippine exports of VCO increased from 7,061 MT in 2013 to 27,719 MT in 2017. Export value increased at an annual rate of 25%, albeit slower than the 41% increase per year for volume. With the entry of more VCO products from different origins in the global market, price of VCO decreased from US\$ 3,986.55 per MT in 2013 to US\$ 2,511.37 per MT in 2017. In essence, VCO became increasingly commoditized although it still receives a significant premium price over the copra coconut oil.

Main markets of VCO exports from the Philippines are the United States and European countries which collectively account for 90% of total export volume. The largest market for VCO is the consumer market for nutraceutical and functional food where the oil is packed or bottled for direct consumption. Key supermarket chains in the United States that carry VCO are Whole Food, Costco, Walmart, Body Shop, and Joe Trader. Whole Food, a chain that specializes in healthy and organic food, carries 8 to 10 brands of VCO. Costco first started selling the Nutiva virgin coconut oil brand, but because of its high demand, the company created its own Kirkland signature brand of organic, virgin and unrefined coconut oil. Nutiva sources virgin coconut oil from Mindanao and other Southeast Asian countries.

In Europe, VCOs are sold also in supermarkets and specialty shops. The European food industry has also started using VCO as ingredient in premium health snacks such as the Get Fruity Bar (United Kingdom), Bio Paranus-Guarana Riegel (Germany), and Lifefood Coconut Bar (Germany/Europe). In general, centrifugally-processed VCO is destined for food manufacturers, due to the consistency in the product's quality and properties. VCO obtained by the expeller method or low-pressure oil extraction, on the other hand, is mostly directed to the distributors for direct sales. (CBI, 2016)

Personal care products are projected to dominate the market and will hold a major share of more than 45% in the global organic virgin coconut oil market. Examples of lead firms in this category are L'Oréal Groupe (France) and Beiersdorf AG (Germany).

Most popular VSS for VCO are Fairtrade and organic.

#### 4. Coconut Water

In recent years, coconut water has emerged as the fastest growing coconut product globally. The rapid growth is driven by the marketing strategies of leading global brands: Coca-Cola (ZICO), Pepsi (O.N.E), and Vita Coco. The rise in the number of celebrity endorsements and media campaigns promoting the health benefits of consuming coconut water have significantly boosted the growth of the market especially in the United States, which is currently the top market for coconut water. Celebrities such as Madonna, Demi Moore, and Matthew McConaughey invested in the leading coconut water company Vita Coco, which fast tracked the introduction of the product in the market.

| <b>Table 21. Export Volume and Value of Philippine Coconut Water Exports, 2013 to 2017</b> |             |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
|  | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>CAGR</b> |
| Volume (in litres)   | 10,418,000  | 35,847,000  | 71,735,439  | 63,870,316  | 85,545,244  | 69%         |
| Value (FOB US\$)   | 10,163,000  | 41,033,000  | 79,325,157  | 67,265,556  | 91,267,877  | 73%         |
| Unit Price<br>(FOB US\$/litre)   | 0.98        | 1.14        | 1.11        | 1.05        | 1.07        | 2%          |

Source: PCA – 2013 and 2014; UCAP /PSA – 2015 to 2017

The Philippines significantly benefited from the exponential growth of the coco water market. Volume of coco water exported by the Philippines increased from 10,418,000 litres in 2013 to 85,545,244 litres in 2017 or a CAGR of 69%. Unit price per litre also increased from US 0.98 in 2013 to US\$ 1.07 in 2017.

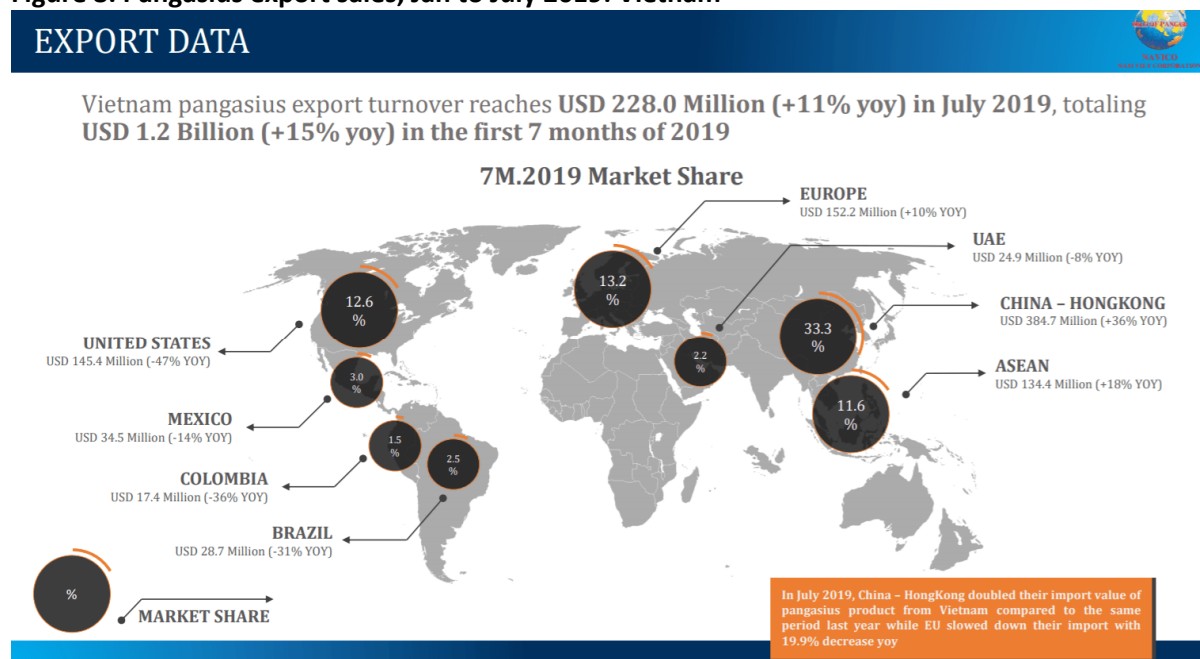
Main markets of the Philippines are the United States and Europe with United Kingdom as the largest importer. Top supplier of bulk concentrated water to Europe is the Philippines followed by Indonesia. Thailand, on the other hand, is a major supplier of packaged coconut water. Thailand also has several installations of packing facilities which produce coconut water for the leading international brands.

Similar to VCO, main VSS are Fairtrade and organic.

## D. PANGASIUUS

Vietnam is the dominant supplier of Pangasius in the world market. Main markets for Pangasius are the United States, European Union, and China.

**Figure 8. Pangasius export sales, Jan to July 2019: Vietnam**



The following are the mandatory requirements for selling Pangasius into the EU market:

- The country must be on the list of countries approved to export fish to the EU.
- The label should contain precise information on its harvesting and production. It applies to all unprocessed and some processed seafood, whether it is pre-packed or not.
- The fishery products must be accompanied by a health certificate.
- Food safety and hygiene management must be based on HACCP principles.
- Fish must be free of contaminants and this should be proven through a laboratory test.

VSS commonly required by European buyers are the Global GAP for Aquaculture and the Aquaculture Stewardship Council (ASC) standard. ASC is usually required by large retailers and food service companies in countries in northern Europe, such as the Netherlands and Germany. Some of the large buyers of Pangasius that supply to the retail segment are Deutsche See (organic) in Germany, Lenger

Seafoods in the Netherlands, and Marine Harvest (multinational). (CBI Ministry of Foreign Affairs, 25 September 2018)

In some European countries such as Germany and Switzerland, organic aquaculture products are becoming popular. The most recognized organic certification for aquaculture is Naturland.

In Japan, ASC certified Pangasius is sold at AEON stores. The ASC certified Pangasius are sourced from CP Vietnam Corporation. The company's Ben Tre Branch farm operation has been ASC certified since July 2013.

In the United States, the USDA Food Safety and Inspection Services (FSIS) has jurisdiction over all wild-caught and farm-raised Siluriformes fish (which includes Pangasius) sold for human food. Foreign countries had to submit adequate documentation showing the equivalence of their Siluriformes fish inspection system with that of the United States. Countries eligible to export siluriformes fish in the United States include Vietnam, China, and Thailand.

FSIS will periodically collect samples of raw imported Siluriformes fish and fish products during re-inspection. The samples could be analysed for chemical residues and Salmonella.

The most popular VSS among US buyers is the Best Aquaculture Practice (BAP) standards set by the Global Aquaculture Alliance (GAA).

Certified aquaculture comprised about 6% of the world aquaculture production. Of the estimated 4.5 million MT of VSS standard-compliant aquaculture production in 2016, it was estimated that about 10% consisted of Pangasius. (Potts, Wilkings, Lynch, & McFatridge, 2016)

| <b>Table 22. Volume of certified Pangasius by type of VSS</b> |                                    |      |                    |
|---|------------------------------------|------|--------------------|
| VSS   | Volume (in MT)                     | Year | Source             |
| ASC   | 144,555                            | 2015 | Potts, et al, 2016 |
| GlobalGAP   | 102,700                            | 2015 |                    |
| BAP   | 38,732                             | 2014 |                    |
| Friends of the Sea  | 7,454                              | 2013 |                    |
| Naturland   | 1000+ (in Vietnam – Binca Seafood) | 2019 | Doan, 2019         |

ASC has the highest volume followed by GlobalGAP. BAP certified came in third. Naturland has no data available. In Vietnam, only Binca Seafood has achieved organic certification. The company sells its organic Pangasius to Deutsche See in Germany.

In Vietnam, the Vietnamese Ministry of Agriculture and Rural Developments (MARD) has also developed 'VietG.A.P' which is intended to raise the standards of Vietnamese aquaculture. It is positioned as a stepping-stone to attain international certification.

## **E. SHRIMP**

Vietnam is the top producer of black tiger shrimp and the fifth largest producer of white leg shrimp. The country produced about 718,000 MT of shrimps in 2018. The leading markets for Vietnamese shrimps in 2018 were the EU28, Australia, United States of America, Japan, and the Republic of Korea.

Philippines, on the other hand, is on the process of rebuilding its shrimp industry. It exports about 10,000+MT of shrimp with United States and Japan among the top markets.

To enter the European market, exporters must meet the following requirements: (EU Export Help Desk, 2019)

- a) The country of origin should be on the list of countries which can export fishery products to the EU. This list is based on an assessment by the EU Food and Veterinary Office of the country's compliance with European health standards for fishery products, including shrimps.
- b) Shrimps must be dispatched from, obtained or prepared in approved farms and establishments (cold store, processing plant, factory or freezer vessels). The facilities must be approved and inspected by the authorized government agencies in the country (e.g., Bureau of Fisheries and Aquatic Resources in the Philippines, MARD in Vietnam).
- c) Imports into the EU must comply with EU food safety standards. For fishery products, products must observe limits on the maximum amount of heavy metals (lead, cadmium, mercury), dioxins and dioxin-like polychlorinated biphenyls (PCBs) and polycyclic aromatic hydrocarbons (PAHs). European countries have zero tolerance limits for antibiotics in contrast to some other countries.

For aquaculture shrimps, controls on veterinary medicine residues must be observed. Exporting countries must submit an annual residue monitoring plan to the EU and have it approved to export aquaculture products to the EU market.

- d) Food safety procedures must be based on HACCP principles.
- d) Food labels must contain the following information:
  - The name under which the product is sold. The label must give the generic name. The food's physical condition or the specific treatment it has undergone (deep-frozen, smoked, etc) must also be included if its omission could be misleading for consumers.
  - The list of ingredients, including additives. Presence of substances known for their ability to spark allergic reactions and intolerance should always be stated.
  - The net quantity (weight) of pre-packaged foodstuffs in metric units.
  - The recommended date until which the product retains its specific properties, formatted as day, month and year, and preceded by the words 'best before'. For highly perishable foods, the date of minimum durability shall be replaced by the "use by" date.
  - Any special conditions for storage or use.
  - The name and the sanitary approval number of the approved premises from where the products were dispatched from, obtained, or prepared
  - The name or business name and address of the manufacturer or packager, or of a seller established in the EU.
  - Place of origin or provenance, where failure to give such particulars might mislead the consumer.
  - Lot marking on pre-packaged foodstuffs, with the marking preceded by the letter 'L' to enable tracing.

For fishery products, the label must also state:

- The commercial and scientific designation of the fish species.
- The production method (caught at sea, in freshwater, or aquaculture)

- The catch area. If at sea, one of the areas internationally identified by the Food and Agriculture Organisation should be stated. If caught in freshwater, the country of origin should be stated. For aquaculture produce, the relevant country should be stated.
- e) Shipments must be accompanied by a health certificate confirming they meet the standards for export to the EU. This certificate is issued by the relevant government agency in the country following a harmonised template.

Once the shipment arrives in the EU, veterinary officials check the shrimps (i.e. documentary, identity and physical checks) and their certificates at an approved border inspection post. Once the results from this inspection are satisfactory, the shrimps can enter the EU market.

The most popular VSS for shrimps in the European market are ASC, organic (especially Naturland), and GlobalGAP Aquaculture. Most important buyers are Deutsche See in Germany, Galana in Belgium, Heiploeg and Klaas Puul in the Netherlands.

Entry of shrimps to the United States is premised on compliance to US food safety laws which has HACCP as the overarching framework. The US Food and Drug Administration (FDA), which is responsible for the safety of all fish and fishery products entering the United States, operates a risk-based Imported Seafood Safety Program (ISSP) involving the following measures of compliance: (<https://www.fda.gov/food/importing-food-products-united-states/imported-seafood-safety-program>)

- inspections of foreign processing facilities,
- sampling of seafood offered for import into the United States,
- domestic surveillance sampling of imported products,
- inspections of seafood importers,
- evaluations of filers of seafood products,
- foreign country program assessments

An Official Certificate of Veterinary Inspection (OCVI) and diagnostic results is also required. Health records must include:

- Aquaculture Certificate of Registration Number
- Names and addresses of consignor and consignee
- Date of shipment
- Date of entry/receipt
- Species
- Total number of animals by species
- Diagnostic results

Similar to Pangasius, the most popular VSS among US buyers is the Best Aquaculture Practice (BAP) standards set by the Global Aquaculture Alliance (GAA).

Table 21 shows the indicative volume of certified shrimp by VSS. GAA-BAP certified shrimps topped the list followed by GlobalGAP and ASC.

| <b>Table 23. Volume of certified shrimps (aquaculture) by VSS</b> |                |      |
|---|----------------|------|
| VSS   | Volume (in MT) | Year |
| GAA-BAP   | 134,529        | 2013 |
| GlobalGAP   | 94,504         | 2015 |
| ASC   | 41,092         | 2015 |
| Organic   | 8,779          | 2013 |

|  |       |      |
|--|-------|------|
| FOS  | 5,687 | 2014 |
| Source: (Potts, Wilkings, Lynch, & McFatridge, 2016) |       |      |

## F. TUNA

Tuna is supplied for consumption in the following forms:

- Preserved and canned tuna, which is the most widespread form
- Sashimi/sushi tuna
- Tuna consumed as steaks
- Fresh tuna or dried/salted/smoked tuna on local markets

Each of these forms of consumption is typically associated with a specific fishing technique and/or tuna species:

- Almost all purse seine catches (mainly skipjack) are destined for canning
- Longline and liners catches are destined for the sashimi market (except for yellowfin, generally destined for canning)
- Gillnetter catches go to canneries and local markets as dried or smoked products
- Pole-and-line catches have multiple destinations: canned tuna markets (mainly for eco-label canning and the fresh tuna consumption market)

Yellowfin dominates the fresh or chilled tuna imports followed by the bigeye and skipjack. Main importers of fresh yellowfin are the European Union, United States of America, and Japan.

| <b>Table 24. Top Importers and Exporters of Fresh or Chilled Yellowfin, 2018</b> |                |                   |                |
|--|----------------|-------------------|----------------|
| Importing Country  | Volume (in MT) | Exporting Country | Volume (in MT) |
| United States of America   | 16,602         | Philippines       | 5,358          |
| Japan  | 3,320          | Taipei, Chinese   | 4,447          |
| Italy  | 2,493          | Sri Lanka         | 4,133          |
| France   | 2,476          | Maldives          | 4,093          |
| Portugal   | 2,247          | Panama            | 1,906          |
| Source: ITC Trade Map; accessed 10 Dec 2019                                      |                |                   |                |

Philippines was the largest exporter of fresh yellowfin tuna in 2018 followed by Taipei. After receiving a yellow card from EU in 2015, Taipei instituted reforms so as to comply with the Illegal, Unreported and Unregulated (IUU) regulations. Sri Lanka received the EU IUU red card in October 2014. This prompted the Sri Lankan industry and government to embark on fundamental reforms of their fishery management system. The red card was subsequently removed in April 2016.

The main species used for canning are the skipjack, yellowfin and, to a lesser extent, albacore tuna. The principal markets for canned tuna are the EU and the US.

| <b>Table 25. Top Importers and Exporters of Prepared Tuna, 2018</b> |                |                   |                |
|---|----------------|-------------------|----------------|
| Importing Country   | Volume (in MT) | Exporting Country | Volume (in MT) |
| United States of America  | 208,737        | Thailand          | 514,272        |
| Italy   | 129,187        | Ecuador           | 222,299        |



|   |         |             |         |
|---|---------|-------------|---------|
| Spain                                       | 128,117 | Philippines | 134,990 |
| United Kingdom                              | 104,888 | Spain       | 108,512 |
| France                                      | 99,891  | China       | 105,794 |
| Source: ITC Trade Map; accessed 10 Dec 2019 |         |             |         |

The type of canned product consumed in the European Union can be divided into three categories: (Lecomte, Rochette, Lapeyre, & Laurans, 2017)

- Northern European countries (United Kingdom, Germany): mainly consume low-cost skipjack (mostly in brine) imported from Southeast Asia (mainly from Thailand)
- Southern European countries (Italy, Spain): both tuna-canning countries that mainly process yellowfin and are typified by high consumption of yellowfin in olive oil
- France: consumes both abovementioned products. The flagship product in this country is the “natural tuna”, which consists of yellowfin in brine, canned raw.

Canned tuna represents about 60% of all the canned seafood consumed in the United States. Consumption of canned tuna in the United States has been declining due to health concerns over mercury that spread among consumers in the 1980s. Those concerns began in 1970, when a Food and Drug Administration test of canned tuna showed unsafe levels of mercury in the product, leading to a massive recall of nearly 1 million cans. The headlines scared a lot of people from eating canned tuna. Then, in the 1990s, the tuna industry faced more criticism because its role in dolphin deaths. Because dolphins often swim in the same waters as yellowfin tuna, they were becoming snagged and killed in fishing nets. Knowledge of this led to some boycotts of the industry. During the recent years, canned tuna was again attacked by media and civic organizations on issues on slavery, poor labor conditions, and unsustainable practices.

Thailand was the top exporter in 2018 with a market share of 32% in volume. Ecuador came in second with 14% market share. Philippines ranked third in terms of volume with a share of 8%. Spain accounted for 7% of the global export volume. Exports from China, on the other hand, made up 6% of the global export volume.

Processing companies in Thailand focus more on non-EU markets, given they have a 24% import duty disadvantage compared to some other major competing processing sites with duty free access to EU under various preferential trade agreements (i.e. Ecuador, Mauritius, Seychelles, Philippines, PNG). Also, during this period, the Thai government implemented stricter regulations in an effort to close out the “yellow card” warning under the EU’s IUU fishing regulation resulting to a decrease in the volume of fish eligible for export to the EU. (Havice & Liam, August 2018) Thailand was removed from the EU’s list of countries warned over illegal fishing last January 2019.

Similar to shrimps, tuna is covered in the United States by the risk-based Imported Seafood Safety Program (ISSP). For frozen tuna imports and for canned tuna, a completed National Oceanographic and Atmospheric Administration (NOAA Form 370). Captain and International Dolphin Conservation Program (IDCP) member nation certification must also be submitted to the U.S. Customs and Border Protection at the time of, or in advance of, importation via the Automated Commercial Environment (ACE) system. An International Fisheries Trade Permit (IFTP) is also required.

On January 1, 2012, the California Transparency in Supply Chains Act of 2010 (SB 657) went into effect in the State of California. Under the law, large manufacturers and retailers are required to disclose their efforts to eradicate slavery and human trafficking within their supply chains. The law’s underlying purpose is to educate consumers, so they can make informed decisions and purchase goods from companies that responsibly manage their supply chains.

To export to the European Union, the following are the mandatory requirements: (Bold Native Advisors Inc., July 2017)

- a) Country of origin must be on an EU-approved list. Approval is granted based on the country's systems to ensure that the fishery products exported meet the EU's strict health requirements. If the country has been approved, a competent authority to approve establishments and factory vessels is designated.
- b) Companies in the EU are required to have systems in place that allow for information regarding traceability, in order to be able to identify where and how tuna was produced and processed in the third country. Therefore, traceability is also important for exporters from developing countries.
- c) Tuna can only be imported into the EU, if they have been processed and prepared in establishments that are on a list approved by European Commission's Directorate General for Health and Consumers. The designated competent authority in the country is responsible for the approval of the company. If approved, the company will receive an EU approval number, which has to be mentioned on the label.
- d) Imports of tuna into the EU must be accompanied by a health certificate signed by the competent authority of the exporting country. This certificate states that products are suitable to be exported to the EU.
- e) Upon arrival in the EU, tuna and the accompanying certificates are inspected by veterinarian officials. The result of the inspection is reflected in the Common Veterinary Entry Document (CVED).
- f) Imports of tuna must comply with EU legislation designed to ensure that the product is safe to eat and does not contain contaminants at levels that could threaten human health. Elements of this legislation include that:
  - Tuna containing contaminants at a level that is unacceptable for public health will be rejected
  - The level of contaminants must be kept as low as can reasonably be achieved
  - For several contaminants, maximum levels are set to protect public health.
- g) Tuna, along with other species, needs to be accompanied by a catch certificate. This certificate is needed to show that tuna products do not come from IUU fishing. Certificates are issued to catches from specific vessels. A catch certificate must contain the following information:
  - Product name, code, and volume landed
  - List of vessels names and/or registration numbers
  - Flag state authority validation
  - Transport details
  - Importer declaration
- h) The contents of labelling must be provided in the language of the country to which the product is exported. When importing fishery and aquaculture products into the EU that are unprocessed (such as fresh or whole frozen tuna)), the following information must be provided on the labelling or packaging of the fishery product, or by means of a commercial document accompanying the goods:

- Name of the product: The commercial and scientific name of the species.
- Production method: caught at sea
- Catch Area: one of the FAO catch areas
- Presentation: fresh, skinless / skin on, with bones/boneless
- Net weight: the net weight must be stated on pre-packed products
- Date of minimum durability: consisting of day, month, and year in that order and preceded by the words "best before" or "best before end" or the "use by" date;
- EU seller: the name or business name and address of the manufacturer, packager or seller established in the EU;
- Conservation temperature: the minimum temperature for conservation must be stated
- The package must contain an EU approval number
- The packaging must also contain a batch number
- Nutrition: nutrition must only be stated if a nutritional claim is made on the product packaging

When pre-packaged foodstuffs (such as canned tuna), are traded with the EU, the following is required:

- List of ingredients
- Net quantity
- Date of minimum durability (best before date)
- Any special storage conditions or conditions of use
- Name or business name and address of manufacturer or packager, or of a seller established within the community;
- Name under which the product is sold
- Particulars of the place of origin or provenance
- Instructions for use
- Approval number, issued by the EU to the production facility (in case of processing).

The Japanese Customs & Tariffs Bureau, Japan Customs states that *“Any person wishing to import goods must declare them to the Director-General of Customs and obtain an import permit. This starts with the lodging of an import declaration and ends with issuance of an import permit after examination of goods and payment of Customs duty and excise tax.”* Since March 2014 Advance Filing Rules have been implemented, which require a shipping company or agent to electronically submit information for maritime container cargoes to be loaded on a vessel intending to entry into a port in Japan, to the Customs in principle no later than 24 hours before departure of the vessel from a port of loading. (Bold Native Advisors Inc., July 2017)

Other mandatory requirements for entry of tuna products to Japan include the following: (JETRO, 2011)

- a) Seafood and processed products are subject to food sanitation, which is conducted to assess the types and details of the raw ingredients, and to test the types and contents of additives, pesticide residues, mycotoxins, and so on. Import bans may be imposed on food in the event of an additive, pesticide, or other contents which are prohibited in Japan, when their levels exceed approved limits, or when the presence of mycotoxins, etc. is above allowable levels. Accordingly, seafood and processed products should be checked at the production site prior to import.
- b) Sales of seafood and processed products in containers and packaging are subject to mandatory labelling under the Food Sanitation Act, and provisions concerning safety labelling such as

indication of food additives, allergy information, raw ingredients and source, and genetic modification, etc. are applicable.

- c) Quality labelling of seafood and processed products must be in Japanese and conform to the following laws and regulations: (i) Act for Standardization and Proper Labelling of Agricultural and Forestry Products; (ii) Food Sanitation Act; (iii) Measurement Act; (iv) Health Promotion Act; (v) Act on the Promotion of Effective Utilization of Resources; (vi) Act against Unjustifiable Premiums and Misleading Representations; and (vii) intellectual asset-related laws (e.g., Unfair Competition Prevention Act, Trademark Act).

When importing and selling seafood as fresh product, the importer must provide the following information on labels in accordance with the quality labeling standards for fresh foods of the Act for Standardization and Proper Labelling of Agricultural and Forestry Products:

- Product name
- Country of origin,
- Content
- Name and address of importer

When importing and selling processed seafood products, the importer must provide the following information on labels in accordance with the quality labelling standards for processed foods of the Act for Standardization and Proper Labelling of Agricultural and Forestry Products, and the similar requirements for processed foods packed in containers under the Food Sanitation Act:

- Product name
- Ingredients
- Content
- Expiration date
- Storage method,
- Country of origin
- Name and address of importer.

Tuna production (capture and farmed production) is regulated by regional fishing management organisations (RFMOs). The members of the RFMOs come from “coastal” countries in the zone and “fishing” countries with interests in the region’s fisheries.

| <b>Table 26. List of tuna RFMOs</b>                                     |                                  |
|---|----------------------------------|
| <b>RFMO</b>   | <b>Jurisdiction</b>              |
| International Commission for the Conservation of Atlantic Tunas (ICCAT) | Atlantic Ocean                   |
| Indian Ocean Tuna Commission (IOTC)                                     | Indian Ocean                     |
| Western and Central Pacific Fisheries Commission (WCPFC)                | Pacific Ocean                    |
| Inter-American Tropical Tuna Commission (IATTC)                         | Pacific Ocean                    |
| Commission for the Conservation of Southern Bluefin Tuna (CCSBT)        | Austral Ocean/<br>Southern Ocean |
| Source: (Lecomte, Rochette, Lapeyre, & Laurans, 2017)                   |                                  |

Management measures imposed by the RFMOs to promote sustainable exploitation of fish stocks include the following: (Dross, 2013; Lecomte, Rochette, Lapeyre, & Laurans, 2017)

- Limits placed on the total allowable catch or on the fishing effort
- Only authorized fishing gears are allowed to be used
- Imposition of control measures (inspections, observations, catch reporting) and sanctions

- Environmental measures to reduce by-catches or protect vulnerable marine ecosystems
- Blacklisting of vessels involved in IUU

In June 2016, twenty-nine States signed the Agreement on Port State Measures to Prevent, Deter and Eliminate IUU Fishing. This was the first international treaty on IUU which authorizes a port State to deny port entry to vessels suspected of IUU fishing activities.

The EU, on the other hand, invoked Council Regulation EC No. 1005/2008 to combat IUU. If a country does not abide by the European directives to prevent and eliminate IUU fishing, it is first identified and sanctioned with a yellow card. The yellow card can be withdrawn once the country concerned has adapted their governance measures to combat illegal fishing. Should the country fail to improve its situation (i.e., if it does not implement significant measure to fight IUU fishing), it is considered to be non-cooperating and sanctioned with a red card, which entails a temporary prohibition to export to the European market.

Voluntary sustainability standards are most visible in the canned tuna sector. The most widely used sustainability standard is the Marine Stewardship Council (MSC) followed by the Friends of the Sea (FOS). The demand for certified seafood products is particularly strong in Germany and Netherlands and, to some extent, in the US market. Sustainability concerns in the canned tuna sector focus on three main issues:

- The status of tuna stocks
- The sustainability of fishing techniques particularly their impact on by-catches
- The working conditions on board the vessels and in the canneries

There are also Fairtrade certified tuna but this is not widespread. The most popular Fairtrade certified tuna is the hand line caught Moluccan yellowfin tuna.

Sustainability sourcing commitments emanate from both the retailers and a handful of vertically integrated firms. These firms control the global market for canned tuna. About 66 companies (e.g., Coop UK, Tesco, Marks & Spencer, World Wide Foods, Sainsburys, Waitrose, Asda and Princes) from across global tuna supply chains established in October 2019 the Global Tuna Alliance, which aims to stop illegally caught tuna getting to market and seeks to boost environmental sustainability and respect for human rights in tuna fisheries around the world. All companies in the Global Tuna Alliance are expected to source tuna from fisheries certified by the Global Seafood Sustainability Initiative's recognized sustainability standards (e.g., MSC, FOS) or comprehensive Fishery Improvement Projects. They are also called to engage with regional fisheries management organizations to push countries to endorse ambitious policies underpinning sustainability and respect for universal human rights, like the Port State Measures Agreement, which will block vessels seeking entry to a port different from their flag state.

Table 25 outlines sustainability sourcing commitments of some of the major retailers and canners/vertically integrated firms.

| <b>Table 27. Sustainability Sourcing Commitments</b> |                |  |
|--|----------------|--|
| <b>Company</b>                                       | <b>Country</b> | <b>Sourcing Commitment</b>   |
| <b>Retailers</b>                                     |                |  |
| Carrefour  | France         | Carrefour has committed to source only MSC-certified tuna products. Starting last January 2019, it has |

| Table 27. Sustainability Sourcing Commitments |                |  |
|---|----------------|--|
| Company                                       | Country        | Sourcing Commitment  |
|   |                | introduced electronic labels in all its hypermarkets to make it easier to enter traceability information.  |
| Systeme U                                     | France         | The French retailer has committed to stop using tuna caught using fish aggregating device in its private label brands.   |
| Marks & Spencer                               | United Kingdom | <p>Marks &amp; Spencer is a member of the Global Sustainable Seafood Initiative (GSSI), whose mission is to ensure confidence in the supply and promotion of certified seafood, as well as to promote improvement in seafood certification schemes. Any third party certification scheme (e.g., MSC) that has been formally recognised by the GSSI is acceptable to Marks &amp; Spencer.</p> <p>As a member of the Sustainable Seafood Coalition, Marks &amp; Spencer has committed to implement the SSC's voluntary Codes of Conduct for Seafood Sourcing and Environmental Claims. All seafood supplied to Marks &amp; Spencer meets the criteria for a 'Responsibly Sourced' claim in line with the SSC definition for responsibly sourced seafood.</p> <p>All seafood sold by Marks &amp; Spencer must be purchased from companies who comply with the company's Human Rights Policy and Code of Ethics and Behaviours.</p> <p>All seafood supplied to Marks &amp; Spencer must be fished or farmed in accordance with national and international laws.</p> <p>All seafood sold by Marks &amp; Spencer must be sourced from fisheries using gear types that have a lower impact on the marine habitat and those which are more selective towards the target species.</p> <p>Marks &amp; Spencer wild caught seafood should only come from fishing vessels that actively operate in legally recognised marine sensitive areas or no-take marine reserves.</p> |
| Sainsbury's                                   | United Kingdom | <p>The company was among the first supermarket to offer MSC certified canned skipjack tuna in 2013.</p> <p>All canned tuna sold by Sainsbury's is pole-and-line-caught tuna. It also has recently offered FAD free tuna.</p>   |
| EDEKA   | Germany        | Targets 100% MSC certified tuna.   |
| Walmart                                       | United States  | Walmart has committed to sourcing only MSC-certified tuna products   |

| <b>Table 27. Sustainability Sourcing Commitments</b> |   |   |
|--|---|---|
| <b>Company</b>                                       | <b>Country</b>                                | <b>Sourcing Commitment</b>  |
| Tesco  | United States                                 | The company has committed to sourcing only MSC certified tuna products, FAD free, and caught by pole and line.  |
| <b>Processor/Canner</b>                              |   |   |
| John West  | United Kingdom                                | Only pole-and-line caught range of skipjack tuna are used in their steaks, chunks, and salads. The company has a Can Tracker application, which allows customers to trace the exact source of their tuna all the way to the boat that caught it.  |
| Thai Union   | Thailand<br>EU<br>US<br>Asia                  | The company commits to sourcing 100% of their branded tuna from fisheries that are either MSC certified or engaged in fishery improvement projects to move them towards MSC certification. By end of 2020, at least 75% of stocks used are MSC certified.   |
| Bolton   | EU<br>North Africa<br>Latin America<br>Canada | As of 2018, the company has committed to ensure that a full 50% of the tuna it uses will only come from more selective fishing methods such as pole and line or FAD-free purse seining.<br><br>The company will increase sourcing from MSC certified fisheries and robust fishery improvement projects gearing towards MSC certification.   |
| Princes/Mitsubishi                                   | Japan<br>Africa                               | As of 2019, 100% of the tuna the company uses is responsibly sourced. Princes defines responsibly sourced as fisheries that are either already certified according to the standards of MSC, or are involved in a time-bound Fishery Improvement Project that is working towards achieving standards required for MSC certification. Fully traceable pole and line fisheries and catches made that are FAD free are also included. |

## G. MEAT PRODUCTS

Philippine meat production is generally geared for the domestic market. Export sales have been declining during the past five years. Biggest export market of the Philippines for meat products in 2018 was Japan.

Vietnam, on the other hand, has some sizeable export of meat products especially pork. Top buyer of meat products from Vietnam in 2018 was Hong Kong and Mainland China.

Both countries have been affected by the African Swine Fever. Likewise, both Vietnam and Philippines are importers of meat products.

**Table 28. Meat Exports from Philippines and Vietnam, 2018**

| Importing Country                           | Value<br>(in US\$ '000) | Importing Country        | Value<br>(in US\$ '000) |
|---|-------------------------|--------------------------|-------------------------|
| Japan                                       | 1,314                   | Hong Kong, China         | 39,261                  |
| United Arab Emirates                        | 92                      | China                    | 34,096                  |
| Australia                                   | 82                      | United States of America | 8,464                   |
| Brunei Darussalam                           | 39                      | Malaysia                 | 5,138                   |
| Qatar                                       | 13                      | Belgium                  | 4,231                   |
| Source: ITC Trade Map; accessed 10 Dec 2019 |                         |                          |                         |

In order to sell to China, export countries should obtain inspection and quarantine access first, and be listed on the “List of products from countries and regions meeting relevant assessment requirements or having traditional trades with China”, developed by the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ).

The Ministry or Department of Agriculture of the exporting country should first submit a written application to AQSIQ. The Chinese authorities then send a questionnaire to the exporting country. The questionnaire includes information regarding the production environment, production scale, risk control system, and quarantine situation for exporting agricultural products. Based on the accomplished questionnaire, the Chinese Authorities will decide whether to initiate the assessment review procedure. If the case is initiated, a field inspection is required. The field inspection covers an inspection of the production environment, processing enterprises, processing technology, product packaging, logistics, etc. After the completion of the assessment, both the Chinese authorities and the Ministry of Agriculture of exporting country sign and confirm the contents of the health certificate. (Euromonitor International, October 2017)

As soon as exporting country has been approved to sell to China, the exporter should comply with the following mandatory requirements: (Sohlberg, 2017) following are the mandatory requirements that the exporter must comply with to be able to sell

- a) Exporter must register at AQSIQ. Registration is valid for three years. To register, the following documents are required:
  - Company documents
  - Accomplished application form
  - Meat test reports and health certificates
  - Approval from competent authorities where exporter is located including certification of sanitary and hygiene compliance as stipulated by Chinese laws.
- b) Products must be tested in a Chinese laboratory.
- c) The following information is usually required on the outer label when exporting meat products to China:
  - Product name
  - Country of origin
  - Registration number at AQSIQ
  - Manufacturing date
  - Shelf life
  - Instructions about storage (including temperatures)



- Net weight
- Meat Inspection legend
- Company name and address
- Batch number
- Packaging specification

d) The following information is required for the label on the inner packaging:

- Product name
- Package specification
- Country of origin
- Registration number at AQSIQ
- Batch number

e) The products should be packed in a way so that it is easy for the China Inspection and Quarantine (CIQ) to check, inspect and put the products into quarantine if needed. If the products pass the test, the local CIQ office will submit a certificate, allowing the product to enter China. If not, CIQ will send back or demolish the products. For minor issues (not dangerous to environmental protection, safety or health), on-site treatment is allowed followed by a new inspection.

f) To clear the goods, the following documentation is needed:

- An invoice
- A packing list
- Certificate of Origin
- Bill of lading
- Trade contract with the importer
- A health certificate/sanitary certificate

There are 2,741 enterprises which are allowed to import meat from foreign countries. Examples of such companies are COFCO Meat Products (Beijing) Co Ltd, Shunxin (Beijing) International Trade Co Ltd, Shanghai Dajiang (Group) Co Ltd, and CR Ng Fung (Shenzhen) Co Ltd.

Chinese retailers trust the checks, inspections and other quality controls run at government level. Although they tend to have additional quality checks and inspections, they follow their own set of rules rather than VSS such as GlobalGAP. With multinational retailers such as Auchan and Wal-Mart making their entry into the Chinese market, VSS such as GlobalGAP, HACCP, ISO22000, and IFS may become important in the mid- to long-term. (Euromonitor International, October 2017)

In the United Arab Emirates (UAE), the exporter must first be registered in the Dubai Municipality and the Food Import and Re-export System, which gives the food label approval that the produce is compliant to quality standards. This is followed by an inspection performed by Dubai Central Food Laboratory or by another internationally accredited laboratory, specifying the items' fitness for human consumption. In addition, exporters are required to submit documents such as an original health certificate issued by the government health authority of the country of origin, packing list, and invoice. Post-shipment, food products are subject to visual inspection to ensure compliance with label and shelf-life regulations. (Euromonitor International, October 2017)

Table 27 outlines the pertinent laws related to export of meat products to UAE.

| <b>Table 29. Laws that govern meat importation in UAE</b> |  |
|---|--|
| <b>Law</b>  | <b>Description</b>   |
| GCC Gulf Standard – GSO 9/2007                            | <p>Bilingual labels are required. The product should have Arabic stickers or labels that clearly mentions the product description, ingredients, country of origin, and net weight. Products intended for institutional use, may be exempt from the Arabic labelling requirement.</p> <p>Exporters should work closely with their importers to ensure that their products will meet the needs of retailers. Labelling regulations apply to all products shipped in bulk and in institutional-size containers. Most major municipalities in the UAE offer the services related to pre-shipment approval of food labels, compliance checks with food ingredients standards.</p> |
| GCC Gulf Standard – GSO 2233/2012                         | <p>This regulation applies to the nutrition labelling of all pre-packaged food products except for raw products such as fresh fruits, vegetables, meat and fish. The health claims mentioned in the product must be cleared by one of the following bodies in the importing country:</p> <ul style="list-style-type: none"> <li>- Food control section of the importing municipality</li> <li>- Medical clinic of the municipality</li> <li>- Federal Ministry of Health of importing country/municipality</li> </ul>  |
| GCC Gulf Standard – GSO 839/1997                          | The standard stresses the need to use suitable materials that protect the integrity of the food, its wholesomeness and characteristics whether it is packed with metal, glass, plastic, paper, carton, multi-layered textile, or wood.   |
| GCC Gulf Standard – GSO 593/1995                          | This GCC standard concerns physical test for meat and meat products.   |
| GCC Gulf Standard – GSO 3496/2007                         | This international Standard specifies a method for the determination of the hydroxyproline content of all kinds of meat and meat products, including poultry. It is applicable to meat and meat products containing less than 05% (m/m) hydroxyproline.  |
| GCC Gulf Standard – GSO 936/2007                          | This standard specifies a method for the determination of the total ash content from all kinds of meat and meat products, including poultry.   |
| GCC Gulf Standard – GSO ISO 1444/2007                     | This international standard specifies a method for the determination of the free fat content of meat and meat products by means of extraction.   |
| GCC Gulf Standard – GSO 849/1997                          | This GSO standard specifies a method for the determination of creatinine content in meat and meat products.  |
| GCC Gulf Standard – GSO 1882/2008                         | This standard is concerned with methods for physical and chemical analysis of meat and meat products   |
| Country of origin certificate                             | Conformity of origin confirmation issued by the customs authority  |
| Health Certificate and Radiation-free Certificate         | Health department-issued certificate confirming products' fitness for human consumption.   |
| Conformity certificate for Organic Products               | <p>Products must be registered at the Emirates Authority for Standardization and Metrology website.</p> <p>Facilities are evaluated as prerequisite for obtaining a certificate of conformity.</p> <p>The average period for service completion is 10 working days, and it costs AED 1,000 in application fees and AED 2,500 in assessment fees.</p>   |

| <b>Table 29. Laws that govern meat importation in UAE</b> |  |
|---|--|
| <b>Law</b>  | <b>Description</b>   |
| Animal Identification and Registration System (AIRS)      | Imported meat products are identified and registered with AIRS. The import of livestock into the UAE (including Abu Dhabi) is controlled by federal legislation and implemented by veterinarians employed by the Federal Ministry of Environment and Water.  |
| Halal Certificate   | <p>Only Halal certificates issued by UAE approved halal certifiers are accepted.</p> <p>The following attestation should be mentioned on the certificate, “this is to certify that the meat accompanying this certificate is halal meat which derived from lawful animals that were slaughter according to Islamic rites”.</p> <p>The following information must be included in any halal certificate:</p> <ul style="list-style-type: none"> <li>- Halal attestations</li> <li>- Name of authorized Islamic association</li> <li>- Halal certificate reference number</li> <li>- Issue date</li> <li>- Health certificate number</li> <li>- Name of the slaughterhouse</li> <li>- Address of the slaughterhouse</li> <li>- Meat type</li> <li>- Carcass (Whole/Cuts)</li> <li>- Total weight and quantity</li> <li>- Brand Name</li> <li>- Date of slaughter</li> <li>- Product’s production date</li> <li>- Product’s expiration date</li> <li>- Name of the meat cutting establishment</li> <li>- Exporter name</li> <li>- Importer name</li> <li>- Port loading</li> <li>- Certifier’s name and signature</li> <li>- Certifier’s Official Stamp</li> </ul> |
| Source: Euromonitor International, October 2017           |  |

Processed meat products are usually imported by distributors. Some of the major distributors of meat include Al Qudwa Food Stuff LLC, Farm Fresh LLC, BTM International General Trading LLC, JM Foods and Kibsons. Large retail chains such as Lulu Hypermarket, JM Foods and Spinneys Group Ltd also import their own supply of meat.

Voluntary standards are not yet common in the UAE. While large UAE retailers are certainly familiar with conformity standards such as GLOBALG.A.P, HACCP and ISO22000, these retailers primarily use certification as a “nice to have”, rather than a requirement. (Euromonitor International, October 2017)

In Japan, the following are the pertinent laws governing meat importation:

- a) Food Sanitation Law
- b) Domestic Animal Infectious Diseases Control Law
- c) Foreign Exchange and Foreign Trade Act

Table 28 lists down the export certificates required to export meat to Japan.

| <b>Table 30. Export Certificates Requirements for meat exports to Japan</b> |  |  |
|---|--|--|
| <b>Product</b>  | <b>Certificate</b>   | <b>Requesting Ministry</b>   |
| Fresh, frozen and processed meat  | Attestation of wholesomeness<br><br>Must be issued by the competent government authority of an exporting country for imports of all meats  | Ministry of Agriculture, Forestry, and Fisheries (MAFF)<br><br>Ministry of Health, Labour and Welfare (MHLW) |
| Fresh, frozen and processed meat  | Attestation of regulatory compliance and regulatory equivalence<br><br>Must be issued by the competent government authority of an exporting country for imports of all meat          | MAFF<br>MHLW   |
| Fresh, frozen and processed poultry   | Attestation to the absence of a risk of the spread of an infectious disease<br><br>Must be issued by the competent authority of an exporting country for imports of poultry products | MAFF   |
| Source: USDA Foreign Agricultural Service, Dec 2018                         |  |  |

### 3 NATIONAL MANDATORY EXPORT REQUIREMENTS

This section describes the mandatory requirements that exporters of shortlisted commodities in Vietnam and Philippines must comply with. The mandatory requirements in both countries consist primarily of sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBT). For accessing most export markets, the requirements are also largely focused on food safety.

The SPS Agreement requires members of the World Trade Organization (WTO) to base their trade-related SPS measures on science. Members such as the Philippines and Vietnam have two main options: (i) conduct a detailed risk assessment in relation to the product and situation they wish to regulate through an SPS measures; and (ii) rely on the international SPS standards set by Codex, World Organization for Animal Health, and the International Plant Protection Convention (IPPC).

The TBT refers to technical regulations and conformity assessment procedures. Testing or certification procedures are examples of TBT.

Below are the key takeaways on the mandatory export requirements:

#### Philippines

- i) Export-related regulatory measures are imposed by the Philippines to ensure the entry of products to the importing market and regulate the products leaving the country. Most of the mandatory requirements are related to ensuring sanitary and phytosanitary measures (SPS) and technical barriers to trade (TBT).
- j) The SPS system in the Philippines has the following structure: i) all food products need to be registered either with Food and Drug Administration (FDA) or the agency with regulatory functions on the sector; ii) all exporters and importers need to be licensed with the relevant authorities; and iii) permits are needed for each import and export shipment. Importers and exporters need licenses from different agencies.
- k) The country's food regulations are generally patterned after CODEX Alimentarius Commission guidelines as well as regulations established by the Food and Drug Administration of the United States and other similar regulatory bodies. However, the Philippines has yet to establish the national microbiological standards for food.
- l) The SPS measures protect human health from risks arising from additives, contaminants, toxins or disease causing organisms in food and drink. To a significant extent, compliance to SPS measures also contributes to promoting the health and safety of farmers and workers especially in relation to use and application of pesticides and other inputs.
- m) Business name registration and business permits are requirements for almost all of the licenses, certifications, and special permits required to export. The Department of Trade and Industry (DTI), Department of the Interior and Local Government (DILG), and Department of Information and Communications Technology (DICT) issued the revised standards in processing business permits and licenses. It prescribes a unified form, processing time (maximum of 2 days), number of procedures (3 steps), and number of signatories (2) for business permits and licensing systems. The registration of businesses and securing permits to operate is done faster and more efficiently in municipalities or cities that have established "business one-stop shops", which house the different local and national government agencies.

- n) There appears to be duplication of requirements (e.g., business permit/registration) in securing export permits, certificates, and the like that could have an impact in terms of cost, time, and complexity arising from overregulation.
- o) Mandatory environmental requirements are more prominent in the meat and fishery sectors and reinforced in requirements for the export commodity clearance and Hazard Analysis Critical Control Points (HACCP) certification/recognition. To some extent, the coconut industry is also subject to environmental regulations (waste discharge, water pollution) especially manufacturers of coconut oil and desiccated coconut but the Philippine Coconut Authority (PCA) generally only requires the License to Operate (LTO) for registration and the commodity clearance.
- p) Mandatory requirements regarding labour and decent work appear to have low direct interaction with trade regulations. The Department of Trade and Industry – Export Marketing Bureau (DTI-EMB) has put compliance with the minimum wage and Social Security System (SSS) laws as requirement for getting the Unique Reference Number (URN) for the Client Profile and Registration System (CPRS). The PEZA has included submission of Corporate Social Responsibility programs and payment to local subcontractors as among the requirements for CPRS application. However, enterprises in the shortlisted commodity subsectors are not located in PEZA. For the zero rated Value Added Tax (VAT) accreditation under the Export Development Act, compliance with the minimum wage and SSS laws are also requirements.

#### Vietnam

- f) In line with its pursuit to deepen its regional and international economic integration and further liberalize trade, a focal point for SPS matters was established in the Ministry of Agriculture and Rural Development (MARD). Similarly, the Directorate for Standards, Metrology and Quality under the Ministry of Science and Technology (MOST) was named as the focal agency for technical barriers to trade.
- g) Starting in 2014 and continuing to the present, Vietnam has been working towards simplification and/or abolishment of unnecessary regulatory burdens on business activities, including import and export. It also has made significant progress in harmonizing domestic laws with international norms and practices. Some of the key reforms included: (Nguyen, Dinh, Nhan Do, & Vo, August 2019)
  - During the period 2015 -2018, the number of imported and exported goods subject to state management and sectoral inspection was reduced by about 4,400.
  - Enactment of the 2015 Enterprise and Law simplified registration and introduced the following changes: (i) enterprises may freely conduct business not prohibited by law; (ii) enterprises no longer have to list their line of business in their business license registration; (iii) foreign investors and foreign-invested enterprises may establish domestic affiliates, providing they hold under 51% equity; and (4) the number of prohibited sectors for foreign investors was reduced from 51 to 6.
- h) Export-related measures consist mostly of TBT and SPS measures, which are aimed at ensuring the quality of exports, contributing to the enhanced quality and competitiveness of Vietnamese products.
- i) In general, food for export must:
  - Meet food assurance safety conditions

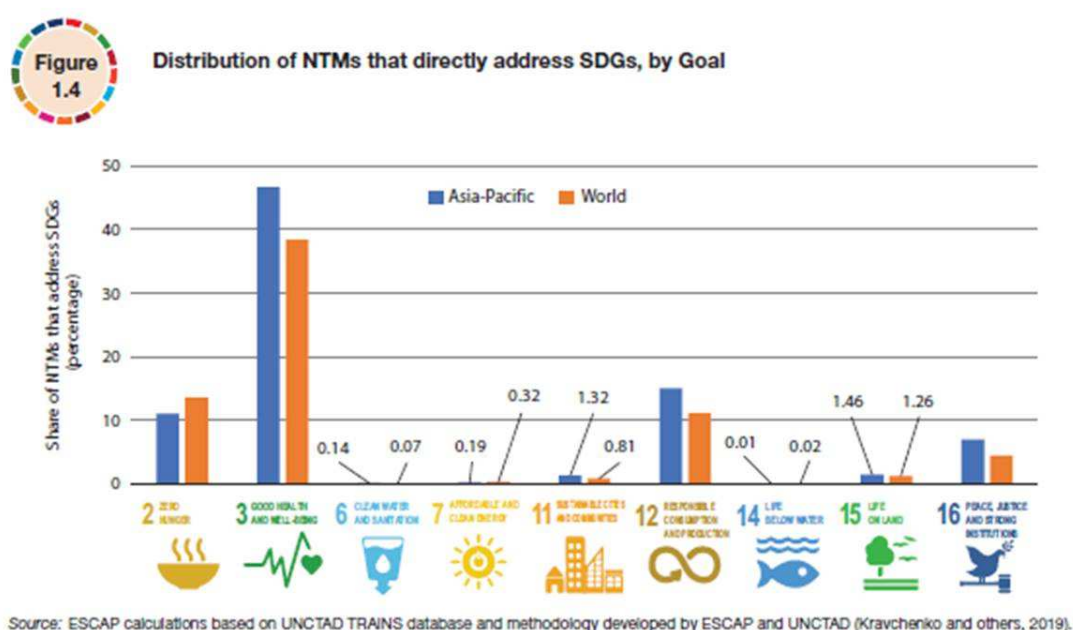
- Conform with food safety regulations of countries of destination as provided in contracts or treaties and international agreements on mutual recognition of results of conformity evaluation signed with concerned countries

Competent Vietnamese state agencies grant certificates of free sale, health certificates, certificates of origin or other certificates for exported food, if so requested by countries of importation. The Ministry of Health, MARD, and the Ministry of Industry and Trade provide the dossiers and procedures for the grant of certificates in their assigned management domains.

- j) Products that are relatively more integrated in global value chains such as coffee are closer to the international standards than other products.

Overall, non-tariff measures imposed by Philippines and Vietnam generally do not have direct impact on the Sustainable Development Goal (SDG) on decent work. This is more or less consistent with the study conducted by the United Nations Economic and Social Commission for Asia and Pacific (UNESCAP) and United Nations Conference on Trade and Development (UNCTAD) that showed that the top three SDGs addressed by non-tariff measures are Good Health and Wellbeing, Responsible Consumption and Production, and Zero Hunger.

Figure 9. Distribution of non-tariff measures that directly address SDGs, by Goal



## A. PHILIPPINES

The mandatory requirements described below were culled from the Philippine Export Guidebook 2018 Edition of the Export Marketing Bureau of the Department of Trade and Industry, websites of the concerned agencies, and interviews with representatives of selected agencies and exporters.

1. The company must be a registered business under the Philippine business law to be a certified exporter. Table 29 outlines the government agencies that the company needs to register with.

| <b>Table 31 . Agencies that a company must register with</b> |  |
|--|--|
| <b>Agency</b>  | <b>Description</b>   |
| Department of Trade and Industry (DTI)                       | Issues certificate of registration of business name of sole proprietors<br><br>Business registration fee depends on the scope of business: <ul style="list-style-type: none"> <li>- Barangay: PhP 200</li> <li>- Municipal: PhP 500</li> <li>- Regional: PhP 1,000</li> <li>- National: PhP</li> </ul> |
| Securities and Exchange Commission (SEC)                     | Issues certificate of registration of business name of partnerships and corporations<br>Fees are dependent on the capitalization   |
| Cooperative Development Authority (CDA)                      | Registration of cooperatives<br>Fees depend on paid-up capital   |

2. The enterprise must have the business permit from the local government unit to operate.

The business or Mayor's permit is a document that ensures that the business is safe to operate under the city's ordinance. Key requirements include: i) barangay clearance (PhP 500); (ii) sanitary permit; (iii) fire permit; (iv) community tax certificate (PhP 1,300 per PhP 1 million gross sales); and (v) public liability insurance. The costs of the different permits including the business permit depend on type of business activity and city where the business is registered in).

3. All businesses must register with the Bureau of Internal Revenue and secure business's taxpayer identification number (TIN), registration of books of accounts, authority to print.
4. Employees must be registered by employers at the relevant agencies so that they can receive their government-mandated benefits under the Labor Code as well as pay their taxes and share of the mandatory contribution.

| <b>Table 32 . Employee Registration</b> |   |
|---|---|
| <b>Agency</b>                           | <b>Description</b>  |
| Bureau of Internal Revenue (BIR)        | All employees must have Tax Identification Number.<br>If the company is enrolled online as an employer in the BIR eREG and an active Withholding Tax Agent for Compensation Earners, it can issue TIN to their employees through the eTIN, a module within the eREG system. |
| Social Security System (SSS)            | An employer or any person who uses the services of another person in business, trade, industry or any undertaking must be registered with the SSS. All employers are required to register their employees and pay the necessary social security contributions.              |
| Philhealth                              | The New National Health Insurance Act (RA 7875) as amended by RA 9241 requires all employers of the government and private sectors and their employees to register with Philhealth. The agency manages and administers the government health care system.                   |
| Home Development Mutual Fund (HDMF)     | RA 7742 requires all SSS members earning at least PhP 4,000 a month to register with this agency. HDMF administers the Pag-Ibig   |



| Table 32 . Employee Registration |   |
|----------------------------------|---|
| Agency                           | Description   |
|                                  | Fund, national savings program initiative and a form of affordable shelter financing for the Filipino worker. |

5. All businesses registered in the Philippines hiring 5 or more employees must register with the Department of Labor and Employment (DOLE). The purpose of the DOLE permit is to ensure that the company abides by the Occupational Safety and Health Standards.
6. Table 31 outlines the product or sector specific permits needed to operate. The list is limited to products covered in this study.

| Table 33. Product/Sector Specific Permits needed to operate   |  |   |  |
|---|--|---|--|
| Regulatory Instrument   | Requirements<br>(Note: accomplished application form is required in all permits)   | Fees  | Agency   |
| <b>Meat (excluding processed)</b>   |  |   |  |
| Certificate of registration of animal facilities<br><br>DA Administrative Circular No. 04 Series 2015 issued pursuant to the Animal Welfare Act as amended by R.A. No. 10631) | Business Permit<br>Business registration from DTI/SEC/CDA<br>Environmental Compliance Certificate (ECC) from Department of Environment and Natural Resources (DENR)<br>Facility inspection   |   | Department of Agriculture (DA) – Bureau of Animal Industry (BAI) |
| Accreditation and registration of meat establishments, cold storage, meat fabricators<br><br>Only meat from Class AAA can be exported   | Blueprint of engineering plan<br>Meat plan and cold storage warehouse<br>Sketch of operational flow<br>List of equipment and rated capacity<br>Pictures of the plant<br>Hygiene and sanitation program/GMP program<br>HACCP plan and certification<br>Product labels<br>Facility inspection/Inspection report<br>Business permit, approved Sangguniang Resolution (for municipal/city slaughterhouse); sanitary permit<br>Water analysis and letter of approval of water source potability from the Department of Health (DOH)<br>ECC, certificate of non-coverage, wastewater discharge permit, permit to operate, approval of air pollution control installations from DENR<br>Water discharge permit/certificate of exemption, LLDA clearance for meat plants in Metro Manila Meat and CALABARZON discharging wastewater to Laguna de Bay from the Laguna Lake Development Authority (LLDA) | Class A: PhP 500<br>Class AA: PhP 1,300<br>Class AAA: PhP 1,800 | DA – National Meat Inspection Service (NMIS)                     |
| <b>Tuna</b>   |  |   |  |
| Certificate of Philippine Registry  | Business registration<br>Certificate of Accreditation, if MARINA-accredited entity   | 3 GT and below: PhP 300<br>3.1 GT-14.99 GT: PhP 600 + 3.00/GT   | Maritime Industry  |

| <b>Table 33. Product/Sector Specific Permits needed to operate</b>   |  |   |  |
|--|--|---|--|
| <b>Regulatory Instrument</b>   | <b>Requirements<br/>(Note: accomplished application form is required in all permits)</b>   | <b>Fees</b>   | <b>Agency</b>  |
| <p>(CPR) and Certificate of Ownership (CO)</p> <p>Rules that govern the registration and documentation of ships entitled to fly the Philippine flag<br/>MC No. 2013-02</p> <p>Usually takes 2 days</p> | <p>MARINA letter-authority to acquire ship through importation<br/>Clearance for Registration<br/>MARINA-issued Tonnage Measurement Certificate<br/>Authorization issued to Classification Society (for newly-built)<br/>Vessel Name Clearance<br/>IMO Number (if applicable)<br/>Notarized Board Resolution/ Secretary's Certificate for the designation of authorized signatories and representatives</p>  | <p>15 GT-34.99 GT:<br/>PhP 900 + 3.00/GT<br/>35 GT-99.99 GT:<br/>PhP 1,200 + 3.00/GT<br/>100 GT-224.99 GT:<br/>PhP 1,500 + 3.00/GT<br/>250 GT-499.99 GT:<br/>PhP 1,800 + 3.00/GT<br/>500 GT and above:<br/>PhP 2,100 + 3.00/GT</p>  | <p>Authority (MARINA)</p>                                    |
| <p>Licensing of commercial fishing vessels</p> <p>License that allows a vessel to conduct fishing operations in Philippine waters<br/>FAO No. 198 series 2000/RA 8550</p>                              | <p>8" x 10" vessel picture showing port, starboard, and name of vessel<br/>Grid map indicating proposed fishing grounds<br/>Certificate of vessel registry<br/>Certificate of vessel ownership<br/>Fishing vessel safety certificate<br/>Approved articles of incorporation and by-laws + SEC registration for corporations<br/>Business name registration for sole proprietors<br/>Fishing logbook for catcher vessel and approval by BFAR upon payment of registration fee of PhP 50; for renewal, fishing logbook report/catch effort report<br/>Inspection report<br/>Affidavit that fishing vessel is not involved in any administration or judicial case (renewal)<br/>TIN</p> | <p>3.1 to 20.0 GT vessel: PhP 200 + 2.00/GT or a fraction thereof<br/>20.1 to 40.0 GT vessel: PhP 250 + 2.00/GT or a fraction thereof<br/>50.01 to 100.0 GT vessel: PhP 300 + 2.00/GT or a fraction thereof<br/>100.01 to 125.0 GT vessel: PhP 500 + 3.00/GT or a fraction thereof<br/>125.01 to 150.0 GT vessel: PhP 1,000 + 3.00/GT or a fraction thereof<br/>150.01 GT and above vessel: PhP 2,500 + 4.00/GT or a fraction thereof</p> | <p>DA – Bureau of Fisheries and Aquatic Resources (BFAR)</p> |
| <p>Fishing gear registration</p> <p>Fishing gear allowed in fishing operations in Philippine waters<br/>FAO No. 198 series 2000/RA 8550</p>  | <p>Drawing of gear design and its specifications<br/>Official receipt of CFVL fee</p>  | <p>Small scale commercial fishing – PhP 200/year<br/>Medium scale commercial fishing – PhP 400/year<br/>Large scale commercial fishing – PhP 600/year</p>   | <p>DA-BFAR</p>   |
| <p>International fishing permit</p> <p>Fish caught by such registered vessels shall be considered as caught in Philippine waters and therefore, not subject to import duties and taxes, and</p>        | <p>CFV/Gear License<br/>Letter of intent to fish in international waters</p>   | <p>Application fee: PhP 1,000<br/>Permit Fee: PhP 1,500</p>   | <p>DA - BFAR</p>   |

| Table 33. Product/Sector Specific Permits needed to operate   |  |  |   |
|---|--|--|---|
| Regulatory Instrument   | Requirements<br>(Note: accomplished application form is required in all permits)   | Fees   | Agency                                  |
| only when the same are landed in duly designated fish landings and fish ports in the Philippines<br>FAO No. 198 series 2000 |  |  |   |
| Fish worker license<br><br>Permit to seek employment as fish worker<br>FAO No. 198 series 2000                              | Community tax certificate<br>Barangay clearance<br>ID picture  | Application fee: PhP 20<br>ID card: PhP 20   | DA-BFAR                                 |
| <b>Coconut</b>  |  |  |   |
| Registration (new/renewal) of processors, exporters, and traders  | <u>Processors/Exporters</u><br>Business registration; articles of incorporation and by-laws (corporations)<br>Business permit<br>License to Operate (LTO) issued by Bureau of Food and Drugs (BFAD)<br>Building plan and permit<br>Feasibility study<br><u>Traders</u><br>Business registration<br>Broker's license<br><br>For renewal: only the business permit is needed | Fees are based on authorized capitalization.<br><u>New registration</u><br>PhP 50,000 and below: PhP 200<br>Over PhP 50,000 to 100,000: PhP 500<br>Over PhP 100,000 to 300,000: PhP 1,500<br>Over PhP 300,000 to 1.5 M: PhP 2,500<br>Over PhP 1.5 M: 1/5 of 1%<br><br><u>Renewal</u><br>PhP 50,000 and below: PhP 200<br>Over PhP 50,000 to 100,000: PhP 500<br>Over PhP 100,000 to 300,000: PhP 750<br>Over PhP 300,000 to 1.5 M: PhP 1,250<br>Over PhP 1.5 M to 2M: PhP 2,000<br>Over PhP 2M to 10M: PhP 3,000<br>Over PhP 10M to 25M: PhP 5,000<br>Over PhP 25M to 50M: PhP 8,000<br>Over PhP 50M to 100M: PhP 10,000<br>Over PhP 100 M: PhP 20,000 | DA – Philippine Coconut Authority (PCA) |
| <b>Processed and pre-packaged food (cocoa , coffee, processed fish/tuna and meat, coconut)</b>                              |  |  |   |
| License to Operate (LTO) -  | <u>General</u><br>Business registration<br>Proof of occupancy<br>Product list  | The fees charged for manufacturers and traders are based on the capital invested.  | DOH – Food and Drug Authority (FDA)     |

| Table 33. Product/Sector Specific Permits needed to operate  |  |   |        |
|--|--|---|--------|
| Regulatory Instrument  | Requirements<br>(Note: accomplished application form is required in all permits)   | Fees  | Agency |
| <p>manufacturers, traders, importers, exporters, wholesalers</p> <p>Rules and Regulations on the Licensing of Food Establishments and Registration of Processed Food, and Other Food Products, and For Other Purposes<br/>A.O. 2014-0029</p> <p>The manufacturing, importation, exportation, sale, offer for sale and distribution of the processed food products (including food supplements) are being licensed by FDA. R.A. 9711 (Food and Drug Administration Act of 2009)</p> | <p>Location map<br/>Floor plan</p> <p><u>Manufacturer</u><br/>Description of the products to be manufactured<br/>Description of manufacturing process including a flowchart with quality control points.<br/>Quality control procedures.<br/>Results of analysis of Finished Product/s showing compliance with applicable standards<br/>Facsimile of proposed product label, compliant with FDA standards</p> <p><u>Repacker</u><br/>Product description<br/>Description of repacking process, including a flowchart with quality control points<br/>Quality control procedures<br/>Results of analysis of Finished Product/s showing compliance with applicable standards<br/>Photocopy of duly notarized valid contract or agreement with the manufacturer, and, as appropriate, the LTO of the manufacturer where the product will be sourced for repacking<br/>Facsimile of proposed label, compliant with FDA labelling requirements</p> <p><u>Toll Manufacturer</u><br/>Valid and notarized toll manufacturing agreement with FDA-licensed trader<br/>Copy of valid LTO including attachments</p> <p><u>Distributor – Exporter/ Distributor - Wholesaler</u><br/>Any of the following documents issued to the applicant by the establishment from which it sources the products it exports: (i) valid notarized distributorship agreement; or (ii) letter of appointment between FDA-licensed manufacturer and exporter<br/>Valid Certificate(s) of Product Registration</p> | <p>1 Million and below:<br/>PhP 1000</p> <p>Over 1 Million but below 5 Million:<br/>PhP 2000</p> <p>5 Million but below 10 Million:<br/>PhP 3000</p> <p>10 Million but below 20 Million:<br/>PhP 5000</p> <p>20 Million but below 50 Million:<br/>PhP 10000</p> <p>50 Million and above:<br/>PhP 15,000</p> <p>Pre-site inspection:<br/>PhP 500 + cost of transportation and accommodation if outside of Manila</p> |        |

- An exporter must be registered with the Client Profile and Registration System (CPRS), a module of the Bureau of Customs (BOC) Electronic to Mobile (e2m) project that facilitates an automated process of registration and renewal of all stakeholders transacting with BOC. Export transactions cannot be processed unless the client is duly registered with the CPRS.

To register at the CPRS, a company has to get a Unique Reference Number (URN) at the appropriate agency. Table 32 outlines the requirements needed to get a URN. As can be gleaned from the table, each agency has its own set of requirements. Processing timelines also differ.

| <b>Table 34 . Requirements to secure URN by agency</b>                               |  |   |
|--|--|---|
| <b>Typology of Exporter</b>  | <b>Agency</b>  | <b>Requirements</b>   |
| Exporter accredited under the Export Development Act (EDA)<br><br>Coffee Exporter    | Department of Trade and Industry (DTI) – Export Marketing Bureau (EMB) | <u>EDA</u><br>The Company's export sales must comprise more than 70% of its total gross sales of the previous year.<br>Affidavit of compliance with the minimum wage and SSS Laws<br>Bank certification of total inward remittances<br>Copy of audited financial statement<br><br><u>Coffee exporters</u><br>Letter of intent<br>Business permit<br>BIR registration<br>Business registration (SEC/DTI/CDA)<br>Company profile<br>Latest audited financial statement immediately preceding taxable calendar year<br><br>Fees: free of charge  |
| Company registered with the Board of Investments (BOI)                               | Board of Investments (BOI)   | SEC registration<br>Latest general information sheet<br>Financial projections<br>Audited financial statements<br>Board resolution<br>Location map<br>Letter of endorsement from government agency (i.e. DOST, DOE, etc.)  |
| Company located in an area governed by the Philippine Economic Zone Authority (PEZA) | PEZA   | Accomplished Export Enterprise Application Form<br>Letter of request re: application for pioneer status<br>Notice of start of commercial operations<br>Description of products<br>Description of component parts and its sources<br>Description of manufacturing process and technology<br>Description of machinery and equipment<br>Summary of patents<br>Corporate Social Responsibility projects<br>Notarized certification of foreign training programs<br>Projected income statements<br>Copy of Environmental Compliance Certificate<br>Notarized certificate from company that current production volume does not exceed the production capacity set by the Department of Environment and Natural Resources<br>Export sales<br>Payment to local subcontractors<br>Application fee for conversion from Non-Pioneer to Pioneer Status<br>No outstanding accounts with PEZA<br>Ocular inspections |

| Table 34 . Requirements to secure URN by agency   |   |   |
|---|---|---|
| Typology of Exporter  | Agency  | Requirements  |
| Company located in one of the many freeport zone authorities (e.g. SBMA, CDC, AFAB, ZEZA, CEZA, etc.) | At the specific Freeport Zone Authority               |   |
| Other exporters not identified above  | Philippine Exporters Confederation, Inc. (PHILEXPORT) | <p>Business registration/Articles of Incorporation<br/> Latest SEC General Information Sheet<br/> Business permit<br/> Past year's audited financial statements<br/> Past year's Income Tax Returns (ITR)<br/> Proof of physical location<br/> Location map of factory and warehouse<br/> Product list<br/> Product brochure<br/> Duly notarized secretary's certificate indicating major signatories<br/> Hard and soft copies (in CD Format) of ID Photo and specimen signature<br/> Other Certifications: BMBE, FDA-LTO, DENR, BFAR, PCA, etc.</p> <p><u>Fees: New Applicants</u><br/> Member: PhP 4000<br/> Non-member: PhP 5000</p> <p>Barangay Micro Business Enterprises (BMBE)<br/> Member: PhP 3000<br/> Non-member: PhP 4000</p> <p>Fees: Renewal<br/> Member: PhP 3000<br/> Non-member: PhP 4000</p> <p>BMBE<br/> Member: PhP 2000<br/> Non-member: PhP 3000</p> |

8. In line with Administrative Order 37 series 1979 (Registration of food and food products intended for import/export), companies are required to apply for a Certificate of Product Registration (CPR) to have their product/s classified, evaluated, and officially registered with the FDA. A CPR is an assurance that the product is safe for consumption or use. The validity of the CPR is two years minimum to five years maximum for initial registration and five years for renewal.

#### Requirements

License to Operate

Clear and complete loose labels or artworks

Documents to substantiate claims such as: (i) technical or nutrition health studies or reports; (ii) market research studies; (iii) certificate of analysis, quantitative analysis and computations; (iv) scientific reports or studies published in peer reviewed scientific journals; and (iv) certificates or certification to support use of seals and in compliance with labelling requirements.

Certificate of Analysis reflecting critical parameters to determine compliance to applicable standards and regulations

Traders, distributors, and wholesalers of locally manufactured products have to show proof of contract or distribution agreement with FDA licensed food manufacturer or repacker

Importers and distributors should show proof of distributorship agreement and manufacturer's compliance to food safety standards

Annual CPR fee is PhP 200 – 250 per product. Costs of laboratory tests and analysis.

9. Exporter has to secure an export commodity clearance or export permit and phytosanitary certificate from the appropriate agencies.

| <b>Table 33 . Requirements and Fees for Export Commodity Clearance/Export Permit</b>  |   |  |
|---|---|--|
| <b>Agency/<br/>Certification</b>  | <b>Requirements<br/>(Note: duly accomplished application form<br/>required for all permits)</b>   | <b>Fees</b>  |
| <b>Plants and Plant Products</b>  |   |  |
| Bureau of Plant Industry<br><br>Health Certificate/<br>Phytosanitary<br>Certificate<br><br>Pesticide residue<br>levels<br><br>Accreditation<br><br>Above are also<br>requirements for<br>LTO and CPR for<br>processed agri-<br>products (cocoa,<br>coffee, coconut) | Actual commodity/shipment for inspection<br>Other documents/clearances from other agencies<br>Treatment certification   | BPI: Free for service; exporter<br>shoulders transportation costs,<br>meals, and overtime services<br><br>Exporter shoulders laboratory<br>tests and treatment costs   |
| <b>Coconut</b>  |   |  |
| DA-PCA<br><br>Export commodity<br>clearance   | Packing list<br>Pro-forma invoice<br>Export declaration<br>Laboratory test analysis – can be done by PCA or<br>accredited laboratories<br>Export clearance does not require third-party<br>certification (e.g. GAP, Halal, GMP), rather<br>compliance with PCA product and safety<br>standards. | Laboratory analysis fees – see<br>annex ____<br><br><u>Inspection and supervisory fees</u><br>Desiccated coconut: PhP 940 per<br>export declaration (maximum of<br>2 vans) + PhP 3,100<br>Copra/Copra Cake/Copra Meal:<br>PhP 4.40/MT + PhP 3,100<br><br>Coconut oil and its derivatives:<br>PhP 5.40/MT + PhP 3,100<br><br>General cargo packed in cans,<br>bags, crates, etc.: PhP<br>626/export declaration<br>(maximum of 2 vans) + PhP<br>3,100<br><br>CISF/PCA Fee: PhP 0.12/kg of<br>copra or its equivalent in other<br>coconut products |

| <b>Table 33 . Requirements and Fees for Export Commodity Clearance/Export Permit</b> |   |   |
|--|---|---|
| <b>Agency/<br/>Certification</b>   | <b>Requirements<br/>(Note: duly accomplished application form<br/>required for all permits)</b>   | <b>Fees</b>   |
| <b>Coffee</b>  |   |   |
| DTI-EMB<br><br>Coffee Export<br>Clearance  | CPRS registration<br>Export Declaration (ED)<br>Proforma bill of lading<br>Packing list<br>Commercial invoice.  | Free<br><br>Expenses for documentation<br>requirements borne by exporter            |
| <b>Processed and Pre-Packaged Products</b>   |   |   |
| DOH-FDA<br><br>Food Export<br>Certificate/<br>Commodity<br>Clearance                 | LTO<br>CPR<br>Packing List or Sales Invoice<br>Flash drive containing the filled templates of the<br>draft Certificates and database.   | Free  |
| <b>Poultry (hatching eggs, day-old chicks, frozen poultry meat)</b>                  |   |   |
| DA-BAI   | <p>Letter of request to export<br/>Farm profile<br/>Copy of the health requirements and/or entry<br/>permit of the importing country<br/>Veterinary Health/Quarantine Certificate in<br/>compliance with the animal health requirements<br/>of the importing country<br/>NMIC Certification (for frozen poultry meat)<br/>NMIC Laboratory Report (for frozen poultry meat)<br/>Certificate of Inspection of the farm from NVQSD</p> <p><u>Minimum health requirements</u><br/>In addition to the health requirements of the<br/>importing country, the following requirements<br/>shall be complied with:</p> <ul style="list-style-type: none"> <li>- Farm has been inspected by duly designated<br/>staff and has been tested every 6 months (can<br/>vary depending on importing country<br/>regulation) and found to be free from Avian<br/>Influenza and other diseases specified by<br/>importing country</li> <li>- At the time of inspection, there is no clinical<br/>evidence of infectious poultry diseases</li> <li>- A certification issued by the farm veterinarian<br/>stating no case Newcastle Disease, Fowl<br/>Cholera, Fowl Typhoid, Avian Salmonellosis,<br/>and Marek's Disease has occurred in the farm<br/>for a period of at least 60 days prior to export.</li> </ul> <p>Only the farms that have passed the health<br/>requirements will be allowed to export.</p> | Free<br><br>Laboratory, quarantine, and<br>documentation costs borne by<br>exporter |
| <b>Livestock and Meat</b>  |   |   |
| DA-BAI<br><br>Veterinary Health<br>Certificate/ Export<br>Permit                     | <p>Letter of request to export<br/>Farm Profile<br/>NMIC Certification (for meat and meat products)<br/>Copy of the health requirements and/or entry<br/>permit of the importing country<br/>Veterinary Health/Quarantine Certificate in<br/>compliance with the animal health requirements<br/>of the importing country<br/>Certificate of Inspection of the farm from NVQSD</p>   | Free<br><br>Laboratory, quarantine, and<br>documentation costs borne by<br>exporter |



| Table 33 . Requirements and Fees for Export Commodity Clearance/Export Permit  |   |  |
|--|---|--|
| Agency/<br>Certification   | Requirements<br>(Note: duly accomplished application form<br>required for all permits)  | Fees   |
|  | <p><u>Minimum health requirements</u><br/>In addition to requirements of the importing country, exporter should comply with the following requirements:</p> <ul style="list-style-type: none"> <li>- The farm of origin has been inspected and tested every 6 months and found to be free from OIE List A diseases.</li> <li>- Testing of specific diseases prescribed in administrative circular on health requirements has been conducted.</li> <li>- A sworn statement issued by farm veterinarian stating no case of any infectious disease has occurred in the farm and within 50 km radius from the farm is located for a period of at least 90 days prior to export.</li> </ul> <p>Only the farms that have passed the health requirements will be allowed to export.</p>                                      |  |
| <b>Tuna/Fishery</b>  |   |  |
| DA – BFAR<br>Export permit for<br>fresh/frozen/chilled<br>fishery products   | <p><u>New applicant</u><br/>Business registration<br/>Business permit<br/>BIR Registration<br/>Special Power of Attorney (SPA) of representative from exporter and photo copy of I.D.<br/>Proforma Invoice<br/>Export Declaration<br/>Results of laboratory tests as required by Philippines and importing country<br/>EU Health Certificate (For EU countries)<br/>Certificate (Quarantine Clearance for outgoing products) (For Non-EU countries)</p> <p><u>Former applicant</u><br/>Proforma Invoice<br/>Export Declaration<br/>Authorization letter of representative from exporter with photocopy I.D<br/>Results of laboratory tests as required by Philippines and importing country<br/>EU Health Certificate (exports to EU<br/>Quarantine Clearance for outgoing products (exports to non-EU countries)</p> | <p>Free</p> <p>Costs of laboratory tests and documentation borne by exporter</p> |
| DA-BFAR<br>Export Commodity<br>Clearance<br><br>This is not required<br>for exporters of<br>fresh, chilled, and<br>frozen products to<br>EU and other<br>countries which<br>require HACCP<br>accreditation and | <p>Partially completed ECC Application Form 1<br/>Export Declaration<br/>Invoice/ packing list<br/>Product/commodity sample in lieu of on-site inspection of commodity for export.<br/>Other relevant documents as may be required by the importing country, buyer &amp; OSEDC Unit, such as but not limited to:<br/>BFAR Registration Certificate issued by BFAR-Fish Health Management and Quality Assurance Section (FHMQAS) to exporters of live ornamental fish,<br/>live food fish and crustaceans<br/>Health Certificate and other certification issued by FHMQAS as applicable</p>  | <p>Free</p> <p>Costs of laboratory tests and documentation borne by exporter</p> |

| <b>Table 33 . Requirements and Fees for Export Commodity Clearance/Export Permit</b> |   |             |
|--|---|-------------|
| <b>Agency/<br/>Certification</b>   | <b>Requirements<br/>(Note: duly accomplished application form<br/>required for all permits)</b>   | <b>Fees</b> |
| EU approval<br>number.   | Updated inspection report of FHMQAS on the holding and packing facilities for live ornamental fish, live food fish & crustacean<br>LGU/BFAR-issued Certification for aquacultured or farmed (ie. Propagated or hatchery bred ) live food fish and crustaceans<br>DOH-Quarantine Certificate on the laboratory analysis (i.e., <i>Vibrio cholerae</i> ) of fish and fishery products for human consumption bound for Japan<br>Results of Laboratory Analysis for fish & fishery products for human consumption as applicable |             |

10. HACCP certification is increasingly being required. HACCP for meat products is under NMIS. The BFAR issues the Certificate of HACCP Recognition/Accreditation for fishery enterprises. The primary pre-requisite for HACCP certification is the License to Operate which is issued by FDA.

Accredited inspection bodies from the private sector (e.g. SGS Philippines) are also allowed to conduct inspection of fishery establishments for purposes of HACCP certification. However, the EU only recognizes inspections conducted by the BFAR. Only those fishery establishments that pass the inspection conducted by the BFAR-Fish Inspection Unit (FIU) are provided with the required HACCP certification and are allowed to export to EU. This is because BFAR is the sole competent authority recognized by the EU by virtue of EC 95/190.

11. For shipments availing of the preferential rate under a particular Free Trade Agreement (FTA), the specific Certificate of Origin form must be a mandatory supporting document.

## **B. VIETNAM**

### **1. Pangasius**

In the fishery sector, MARD is responsible for the following:

- k) Planning for the production, processing, and distribution of fishery products
- l) Technical requirements on producers and traders of fishery products
- m) Technical requirements on imported and exported products (mostly sanitary and phytosanitary measures)
- n) Coordination with the Ministry of Finance to identify tariff on fishery products
- o) International regulatory cooperation (including mutual recognition agreements)

Quality control and related regulations for the production and distribution of fishery products are directly administered by the National Agro-Forestry-Fishery Quality Assurance Department, an office directly under MARD.

Other government agencies with regulatory functions in the fishery sector are the following:

*Ministry of Industry and Trade (MOIT):* has the general responsibility of (i) exports, imports, and domestic trade of fishery products; and (ii) technical requirements other than SPS measures.

*Ministry of Health:* in-charge of regulations on food safety and sanitation in coordination with MARD and MOIT.

*Ministry of Finance:* sets the tariff and other customs- and tax-related regulations on trade of fishery products.

*General Department of Customs:* implements tariff and customs policies as well as promulgates and enforces regulations over custom procedures.

*Ministry of Planning and Investment:* regulates start-up businesses in coordination with other agencies such as MARD

*State Bank of Vietnam:* promulgates policies on control of supply of foreign currency loans by commercial banks, which provide the loans to enterprises including those in the fishery sector.

Below are the salient points of No. 36/2014/ND-CP: Decree on raising, processing, and exporting Pangasius:

#### Legal basis

Pursuant to the Law on Government organization dated December 25, 2001;

Pursuant to the Law on Fishery dated November 26, 2003;

Pursuant to the Law on Product and goods quality dated June 17, 2010;

Pursuant to the Law of Food safety dated November 21, 2007;

Pursuant to the Law on Commerce dated June 14, 2005;

#### Requirements for commercial Pangasius farm

- a) The locations and areas of the commercial pangasius farms must conform with the planning for raising and processing pangasius ratified by the People's Committee of the province.
- b) The registration of area and output of every commercial pangasius farm must be certified by a local fishery authority.
- c) Commercial pangasius farms must meet the technical regulations and standards for fishery, issued with a certificate and ID number by local fishery authority.
- d) The breeds, feeds, veterinary medicine, bioproducts, microorganisms and chemicals used must conform to the law.
- e) Every commercial pangasius farm must obtain the Certificate of Good Aquaculture Practice according to VietGap or an international certificate that is conformable with Vietnam's law.

#### Requirements for processing facilities

- a) The processing facility must have a Business Registration, in which fish processing is licensed, issued by a competent authority.
- b) It should be listed in the planning for raising and processing pangasius ratified by the People's Committee of the province.
- c) Processing facility must take necessary measures to trace the origins of processed pangasius products.
- d) It must apply a quality control system, technical regulations and standards for food safety and hygiene during manufacture and sale of aquaculture products; obtain a certificate of food-safety facility issued by a competent authority.
- e) It must ensure the quality of pangasius products, carry out inspections, and label goods in accordance with law.
- f) Every new processing facility must be inspected by the Ministry of Agriculture and Rural Development and be issued with a certificate of food-safety before starting operations.

#### Requirements for quality, food safety and hygiene of processed pangasius products

- a) The Pangasius must be raised in duly approved commercial farms.
- b) Processed pangasius products must comply with regulations on quality, food safety and hygiene applied to aquaculture products of Vietnam and the importing countries.
- c) Processing of frozen pangasius fillets: (i) the chemicals, additives, and other substances used must conform with Vietnam's law and regulations of importing countries; (ii) the ice-glazing ratio (ratio of ice glaze to gross weight) of exported pangasius products must conform with regulations of importing countries. In other cases, the ice-glazing ratio must not exceed 10%; (iii) the amount of water must not exceed 83% of net weight (weight of pangasius fillets after removing the ice glazing); and (iv) apart from complying with applicable regulations of Vietnam and importing countries on food labelling, the labels of frozen pangasius fillets must contain net weight, ice glazing ration, names of chemicals, additives, and other substances used during the processing.

#### Requirements for exporting Pangasius products

- b) If the exporter does not have a processing facility, the company must have a processing contract or sale contract with a processing facility that meets the requirements stipulated in this Decree.
- c) Pangasius export contracts must be registered with Vietnam Pangasius Association. The customs shall only grant clearance to the consignments under the pangasius export contracts certified by Vietnam Pangasius Association.

#### Registration of Pangasius export contracts

- a) Vietnam Pangasius Association is in charge of registration of pangasius export contracts.
- b) All exporters of pangasius products must apply for registration of pangasius export contracts.
  - An accomplished pangasius export contract registration form must be submitted.
  - A valid copy of a Certificate of Registration of commercial pangasius farming, which is certified by a local fishery authority (if the exporter uses commercial pangasius from the commercial farms under the exporter's ownership)
  - A valid copy of a contract to buy raw pangasius with a commercial pangasius farm that meets the requirements in this Decree (if the exporter uses commercial pangasius from the commercial pangasius farms that are not under the exporter's ownership);
  - A valid copy of a Certificate of food-safety processing facility (whether the exporter buys commercial pangasius or has them processed at another processing facility)
  - A valid copy of the contract for purchase of commercial pangasius or the contract for pangasius product processing with a processing facility that meet the requirements in f this Decree (applied to the exporters that do not have a processing facility).
- c) Method and time
  - Within one working day, if the application for registration of the pangasius export contract is not satisfactory, Vietnam Pangasius Association shall request the exporter (in writing) to complete the application.
  - Within three working days from the day on which sufficient documents are received, if the application is satisfactory and the purchase prices of raw pangasius are higher or equal to those announced by Vietnam Pangasius Association at the time the application is received (applied to exporters that use commercial pangasius purchased from commercial pangasius farms that are not under the exporters' ownership), Vietnam Pangasius Association shall verify and certify the pangasius export contract.
  - If the application does not comply with the aforementioned regulations, Vietnam Pangasius Association shall not grant registration of the pangasius export contract and provide explanation in writing.
- d) The fees for evaluation of qualification for pangasius business shall be provided for by the Ministry of Finance.

#### Dealing with violations during export of pangasius products

- a) The exporter of consignments of pangasius products that fail to meet the requirements regarding quality, food safety and hygiene of Vietnam and the importing countries shall be suspended.
- b) Any exporter that is suspended by a competent authority of the import market due to violations pertaining to food safety and quality shall be suspended from exporting pangasius products.
- c) If multiple consignments exported to a country that does not require the Vietnamese party to inspect and certify the quality of exported pangasius products, but only imports pangasius products from Vietnam are found substandard, the Ministry of Agriculture and Rural Development shall carry out quality inspections, impose penalties upon the exporters and processing facilities responsible for such consignments in accordance with the Law of Food safety and the Law on Product and goods quality.

## **2. Coffee and Cocoa Beans**

| <b>Table 36 . Export related Measures: Coffee and Cocoa Beans</b>  |                            |   |
|--|----------------------------|---|
| <b>Legal basis</b>   | <b>Date of enforcement</b> | <b>Measure Description</b>  |
| Thu Vien Phap Luat - 46/2015/TT-BCT; Circular  | 2016-07-01                 | This measure requires to unexpectedly test the quality of domestically-manufactured products when having information and warnings on domestically-manufactured products for export which are incompliant with the conditions in the Law on Product and Goods Quality. |
| Luat Vietnam - Circular regulating the process and procedures of quarantine for import, export, transit and post-import of objects subjected to plant quarantine                   | 2015-01-01                 | Certificate of phytosanitary control is required for exported plants and plant products   |
|  |                            | Exported plants must be inspected for SPS control purpose   |
|  |                            | SPS control for exported plants/plant products is required including testing requirement  |
| Thu Vien Phap Luat - Decree No. 31/2018/ND-CP dated March 8, 2018 on guidelines for the Law on Foreign Trade Management in terms of origin of goods                                | 2018-03-08                 | Exporters applying for certificate of origin have to keep supporting documents for at least 5 years from the date granted   |
| Thu Vien Phap Luat - Circular No. 279/2016/TT-BTC dated November 14, 2016, providing for fees for food safety and hygiene and the collection, transfer, management and use thereof | 2017-01-01                 | This measure requires exporters to pay fees for granting certificate of inspection of food safety and hygiene   |
| Thu Vien Phap Luat - Circular No. 231/2016/TT-BTC dated November 11, 2016 on the norm, collection, payment, management and use of  | 2017-01-01                 | Exporters should pay fees for SPS control of plants/plant products  |

| <b>Table 36 . Export related Measures: Coffee and Cocoa Beans</b>                                      |                            |                            |
|--|----------------------------|----------------------------|
| <b>Legal basis</b>   | <b>Date of enforcement</b> | <b>Measure Description</b> |
| fees related to plant protection   |                            |                            |
| Source: <a href="https://trains.unctad.org/">https://trains.unctad.org/</a> - Exports Related Measures |                            |                            |

### 3. Meat and Edible Offals

| <b>Table 37 . Export Related Measures: Meat and Edible Offals</b>  |                            |   |
|--|----------------------------|---|
| <b>Legal Basis</b>   | <b>Date of Enforcement</b> | <b>Measure Description</b>  |
| Thu Vien Phap Luat - 46/2015/TT-BCT  | 2016-07-01                 | This measure requires unscheduled testing of the quality of products when there are warnings or information that domestically-manufactured products for export are not compliant with the conditions in the Law on Product and Goods Quality. |
| "Luat Vietnam - Decree on detailing a number of articles of the Veterinary Law.<br>- Replacement for Decree 98/2011/ND-CP"                                     | 2016-07-01                 | Export prohibition of animals and product thereof without treatment or treatment that does not meet importing countries' requirement. This is effectively a requirement on production or post-production treatment of products for export     |
| Thu Vien Phap Luat - Circular No. 25/2016/TT-BNNPTNT dated 30 June 2016, providing regulations for the quarantine of terrestrial animals and animal products   | 2016-08-15                 | Requirement to register for SPS control of exported terrestrial animals and products there of   |
|  |                            | Requirement to undergo SPS control of exported terrestrial animals and products there of  |
|  |                            | Requirement to present to the authority the SPS control certificate to export terrestrial animals and products there of   |
| Thu Vien Phap Luat - Decree No. 31/2018/ND-CP dated March 8, 2018 on guidelines for the Law on Foreign Trade Management in terms of origin of goods            | 2018-03-08                 | Exporters applying for certificate of origin have to keep supporting documents for at least 5 years from the date of grant  |
| Thu Vien Phap Luat - Circular No. 09/2016/TT-BNNPTNT dated June 01, 2016, providing regulations for animal slaughter control and veterinary hygiene inspection | 2016-07-16                 | Veterinary stamp on exported animal products by local authority, which is effectively a certification by the local authority  |
| Source: <a href="https://trains.unctad.org/">https://trains.unctad.org/</a> - Exports Related Measures   |                            |   |

#### 4. Shrimps

| <b>Table 38. Export related Measures: Shrimps</b>  |                            |   |
|--|----------------------------|---|
| <b>Legal Basis</b>   | <b>Date of Enforcement</b> | <b>Description of Measure</b>   |
| Luat Vietnam - Decision on promoting inspection of quality and safety of seafood exported to Canada and Japan  | 2011-10-31                 | Only those shipments that were inspected and certified are allowed to export  |
|  |                            | Requirement on the inspection of quality and food safety for seafood export to Canada and Japan   |
| Luat Vietnam - Decision amending the list of chemical criteria for testing fishery products exported in accordance with Decision 2864/QD-BNN-QLCL dated 14 November 2011 of MARD | 2012-06-20                 | Requirement on testing and meeting requirement on Nitrofurans (AOZ)   |
|  |                            | Requirement on testing and meeting requirement on enrofloxacin  |
|  |                            | Requirement on testing and meeting requirement on Malachite Green/Leuco; Malachite Green  |
|  |                            | Requirement on testing and meeting requirement on chloramphenicol   |
|  |                            | Requirement on testing and meeting requirement on SO2   |
|  |                            | Requirement on testing and meeting requirement on Histamines  |
|  |                            | Requirement on testing and meeting requirement on Trifluralin   |
|  |                            | Requirement on testing and meeting requirement on Cadmium   |
|  |                            | Requirement on testing and meeting requirement on Mercury   |
| Luat Vietnam - Decision amending some measures on inspection of chemical residues, antibiotic residues for fishery products exported to Canada and Japan                         | 2012-06-12                 | Requirement on applying strict inspection for fishery export that was warned by authorized agencies of chemical and antibiotic residues |
| Source: <a href="https://trains.unctad.org/">https://trains.unctad.org/</a> - Exports Related Measures   |                            |   |

#### 5. Tuna

| <b>Table 39 . Export Related Measures: Tuna</b>                                    |                            |   |
|--|----------------------------|---|
| <b>Legal Basis</b>   | <b>Date of Enforcement</b> | <b>Description of Measures</b>  |
| Luat Vietnam - Circular of MARD on tracing and recalling of fishery products being | 2011-07-21                 | This measure requires producers and traders to retrieve their fishery exports (either voluntarily or as requested by the authority) |

| <b>Table 39 . Export Related Measures: Tuna</b>   |                            |   |
|---|----------------------------|---|
| <b>Legal Basis</b>  | <b>Date of Enforcement</b> | <b>Description of Measures</b>  |
| unqualified for food quality and safety requirements  |                            | if they fail to ensure food safety and sanitation.  |
| Thu Vien Phap Luat - 46/2015/TT-BCT   | 2016-07-01                 | "This measure requires unscheduled testing of the quality of products when there are information and warnings on domestically-manufactured products for export which are not compliant with the conditions in the Law on Product and Goods Quality. |
| Luat Vietnam - Regulation on testing and certification of safety for exporters of fishery product   | 2013-12-26                 | This measure sets out the documents required for certifying food safety for producers of fishery products   |
|   |                            | This measure sets out the contents of inspections and modes of inspections before granting certificate of food safety to fishery processors and exporters   |
|   |                            | Requirement on participation in certified fishery export program, and being granted credentials for export.   |
| "Luat Vietnam - Decree on detailing a number of articles of the Veterinary Law.<br>- Replacement for Decree 98/2011/ND-CP"  | 2016-07-01                 | Export prohibition of animals and product thereof without treatment or treatment that does not meet importing countries' requirement. This is effectively a requirement on production or post-production treatment of products for export           |
| Thu Vien Phap Luat - Decree No. 31/2018/ND-CP dated March 8, 2018 on guidelines for the Law on Foreign Trade Management in terms of origin of goods   | 2018-03-08                 | Exporters applying for certificate of origin have to keep supporting documents for at least 5 years from the date of grant  |
| Thu Vien Phap Luat - Circular No. 279/2016/TT-BTC dated November 14, 2016, providing for fees for food safety and hygiene and the collection, transfer, management and use thereof  | 2017-01-01                 | This measure requires exporters to pay fees for granting certificate of, announcement of, inspection of food safety and hygiene   |
| "Luat Vietnam - Circular of the MARD on the inspection of animal and aquatic products.<br>- Amendment and supplement for Circular 51/2010/TT-BNNPTNT;<br>- Replacement for document ID 7391;<br>- Partially nullified by Circular 02/2018/TT-BNNPTNT" | 2016-08-15                 | SPS control certificate is required to export aquatic animals and products thereof  |
|   |                            | Exported aquatic animals and products thereof must register for SPS control (dossiers as required in Item 1, Article 57 of Law on Animal Health)  |
|   |                            | Exported aquatic animals and products thereof must present the copy of certification of SPS safety in the originating provinces/locations of the exported articles  |



| Table 39 . Export Related Measures: Tuna   |                     |  |
|--|---------------------|--|
| Legal Basis  | Date of Enforcement | Description of Measures  |
|  |                     | (dossiers as required in Item 1, Article 57 of Law on Animal Health)   |
|  |                     | Sample of exported aquatic animals and products thereof must be tested   |
| Thu Vien Phap Luat - Circular No. 09/2016/TT-BNNPTNT dated June 01, 2016, providing regulations for animal slaughter control and veterinary hygiene inspection | 2016-07-16          | Veterinary stamp on exported animal products by local authority, which is effectively a certification by the local authority   |
| MARD Circular 21/2018/TT-BNNPTNT   | 2018-11-15          | <p>The captain of a fishing vessel with a length of at least 12 meters shall prepare a fishing logbook and present it to the fishing port management organization within 24 hours after the handling of fishery products at the port is done.</p> <p>The captain of a fishing vessel with a maximum length from 6 to less than 12 meters shall prepare a fishing report and submit it to the fishing port management organization once a week.</p> |
| Source: <a href="https://trains.unctad.org/">https://trains.unctad.org/</a> - Exports Related Measures   |                     |  |

## 4 TRADE AGREEMENTS

### A. FREE TRADE AGREEMENTS

| Table 40. Free Trade Agreements Signed and In Force: Philippines, Vietnam, and ASEAN |                                      |                   |                        |
|--|--------------------------------------|-------------------|------------------------|
| Free Trade Agreement   | Date Signed                          | Labour Provisions | Environment Provisions |
| <b>Philippines</b>   |                                      |                   |                        |
| Japan – Philippines Economic Partnership Agreement                                   | 2008                                 | ✓                 | ✓                      |
| <b>Vietnam</b>   |                                      |                   |                        |
| Comprehensive and Progressive Agreement for Trans-Pacific Partnership                | 2018                                 | ✗                 | ✗                      |
| Eurasian Economic Union-Vietnam Free Trade Agreement                                 | 2016                                 | ✓                 | ✓                      |
| Japan-Vietnam Economic Partnership Agreement   | 2009                                 | ✗                 | ✗                      |
| Vietnam-Chile Free Trade Agreement   | 2012                                 | ✗                 | ✗                      |
| [Republic of] Korea-Vietnam Free Trade Agreement                                     | 2015                                 | ✗                 | ✗                      |
| Vietnam – EU Free Trade Agreement  | 2019<br>Signed but not yet in effect | ✓                 | ✓                      |
| <b>ASEAN</b>   |                                      |                   |                        |
| ASEAN Free Trade   | 1993                                 | ✗                 | ✗                      |
| Australia – ASEAN – New Zealand Free Trade Agreement                                 | 2010                                 | ✓                 | ✓                      |
| ASEAN Hong Kong  | 2019                                 | ✗                 | ✗                      |
| ASEAN-India Comprehensive Economic Cooperation Agreement                             | 2010                                 | ✗                 | ✗                      |
| ASEAN-Japan Comprehensive Economic Partnership                                       | 2008                                 | ✗                 | ✗                      |
| ASEAN-People's Republic of China Comprehensive Economic Cooperation Agreement        | 2005                                 | ✗                 | ✓                      |
| ASEAN-[Republic of] Korea Comprehensive Economic Cooperation Agreement               | 2007                                 | ✗                 | ✗                      |
| Source: Asia Regional Integration Center database; accessed 1 Dec 2019               |                                      |                   |                        |

Of the fifteen free trade agreements (FTAs) entered into by the Philippines, Vietnam, and ASEAN countries, four have labour provisions while five contained environmental provisions. All agreements with labour and environmental provisions are with the more developed economies. The stipulation of environmental and labour provisions in intra-Asia-Pacific free trade agreements is rare. ASEAN countries generally have separate stand-alone agreements on sustainability issues rather than in a framework of a trade agreement. Similarly, Australia also deals with sustainability issues separate from trade agreements.

In FTAs with labour and environmental provisions except that of the EU-Vietnam FTA, references to environment and labour issues were primarily in terms of cooperation, non-derogation/obligations to uphold environmental and labour laws, and commitments to sustainable development. Agreements generally do not have a concrete framework upon which to monitor the performance of the free trade agreements in advancing or enforcing the labour and environmental provisions.

Among the FTAs, the most comprehensive in terms of coverage of labour and environmental issues is the EU – Vietnam which has been signed but not yet in force. The sustainability provision of the agreement reflects the EU’s vision and strategy to link trade and investment with sustainable development. Salient points include: (i) recognition of the beneficial role of decent work; (i) facilitation of trade and investment in environmental goods and services, which are relevant for climate change; (iii) development and participation in voluntary initiatives and regulatory measures to establish high-level labour and environmental protection; and (iv) promotion of corporate social responsibility. It also involves the harmonization of product standards either to the international level or to the (higher) level of the respective trading partner. (Troster, et al., 2019)

Table 41 lists down the pertinent labour and environmental provisions indicated in the agreements.

| <b>Table 41. Labour and Environment Provisions in Free Trade Agreements</b>  |  |   |
|--|--|---|
| <b>Labour Provision</b>  | <b>Environment Provision</b>   | <b>Dispute Mechanism</b>  |
| <b>Japan – Philippines Economic Partnership Agreement (PJEPA)</b>  |  |   |
| <p>Non-derogation of domestic labour laws to encourage investments and boost trade flows. Of particular interest in this provision are domestic laws related to ILO Labour Rights Conventions.</p> <p>The agreements also stipulated for human resource development training in sectors of mutual interest, harmonization of competency standards, and the movement of natural persons to practice their profession. The PJEPA includes a provision that would allow Filipino nurses and certified care workers to work in Japan contingent on passing several requirements.</p> | <p>The two countries agree not to relax environmental measures to encourage investments by the other party.</p> <p>The agreement binds the two countries to the general principles of efficient utilization of energy, proper management of environment and sustainable development and the need to cooperate in the field of energy and environment.</p> <p>It also explicitly indicated cooperation in the management of hazardous and solid wastes in the list of possible areas for cooperation.</p> | <p>Creation of subcommittees to refine the various provisions and cooperation mechanisms.</p> |
| <b>Australia – ASEAN - New Zealand Free Trade Agreement (AANZFTA)</b>  |  |   |
| <p>New Zealand – Philippines: The agreement provided the framework (by way of a memorandum of understanding) for a more effective discussion and cooperation on labour issues with a focus on the ILO Labour Rights Conventions.</p> <p>Agreement between Philippines and New Zealand also called for effective</p>  | <p>New Zealand and Philippines signed a Memorandum of Agreement on Environment Cooperation within the framework of the AANZFTA.</p>  | <p>Consultation only</p>  |

| <b>Table 41. Labour and Environment Provisions in Free Trade Agreements</b>   |  |   |
|---|--|---|
| <b>Labour Provision</b>   | <b>Environment Provision</b>   | <b>Dispute Mechanism</b>  |
| enforcement of domestic laws and not to encourage trade or investment through weakening labour laws.  |  |   |
| <b>Eurasian Economic Union-Vietnam Free Trade Agreement</b>   |  |   |
| <p>The agreement has a dedicated chapter covering sustainability issues where the parties specify their commitments to sustainable development. The following are some of the commitments made by the parties to the agreement:</p> <ul style="list-style-type: none"> <li>- The Parties agree to strengthen cooperation on environmental and labour issues and promote sustainable development.</li> <li>- Each Party shall endeavour to ensure that its environmental and labour laws and regulations, policies and practices are not used for the purposes of trade protectionism.</li> <li>- Neither Party shall seek to encourage or gain trade or investment advantage by weakening or failing through a sustained or recurring course of action or inaction to enforce or administer its environmental and labour laws and regulations, policies and practices in a manner affecting trade between the Parties.</li> <li>- The Parties shall endeavour to expand their cooperation in bilateral, regional, and multilateral fora on environmental and labour issues, recognising that such cooperation will help them achieve their shared environmental and labour goals and objectives, including the development and improvement of environmental and labour protection, practices, and technologies.</li> <li>- The parties uphold the ILO conventions. The Parties reaffirm their commitment under the Ministerial Declaration of the UN Economic and Social Council on Full Employment and Decent Work of 2006 to recognise full and productive employment and decent work for all as a key element of sustainable development for all countries and as a priority objective of international cooperation and to promote the development of international trade in a way that is conducive to full and productive employment and decent work for all.</li> </ul> |  | Either Party may request consultations regarding labour and environment through a written request submitted to the contact point designated by the other Party. |
| <b>ASEAN-People's Republic of China Comprehensive Economic Cooperation Agreement</b>  |  |   |
|   | Environment and energy identified as among the potential areas that cooperation can be extended.   | Dispute shall be settled by consultation.   |
| <b>European Union – Vietnam Free Trade Agreement</b>  |  |   |
| Specific commitments address the effective implementation of each of the four ILO core labour standards (freedom of association and right to collective bargaining; forced or compulsory labour; child labour; non-   | The agreement includes commitments to the effective implementation by each Party of all the ratified Multilateral Environmental Agreements (MEAs), including, among others, the UN | A Specialised Committee on Trade and Sustainable Development will specifically  |

**Table 41. Labour and Environment Provisions in Free Trade Agreements**

| Labour Provision  | Environment Provision   | Dispute Mechanism  |
|---|---|--|
| <p>discrimination in respect of employment and occupation) and of all the ratified ILO Conventions (not only the fundamental ones), as well as progress towards ratification of non-ratified fundamental ILO Conventions.</p>   | <p>Convention on Biological Diversity (CBD), the UN Convention on International Trade in Endangered Species (CITES) and the UN Framework Convention on Climate Change (UNFCCC). With regard to the latter, a dedicated article on climate change further underlines the common commitment of the EU and Vietnam to achieve climate change objectives.</p> <p>The agreement provides for specific action to advance the conservation and sustainable management of natural resources. In particular, it sets commitments on biodiversity, including with regard to strengthening cooperation under CITES and addressing illegal trade in wildlife; forestry, including with regard to combatting against illegal logging; fisheries including with regard to fostering cooperation with RFMOs, fighting against IUU and promoting sustainable aquaculture.</p> | <p>monitor the implementation of the trade and sustainable development agreements.</p> <p>Specialised structures will also be established to promote the active involvement of civil society from both parties. At the domestic level, both the EU and Vietnam will consult Domestic Advisory Groups (DAGs). DAGs will comprise independent civil society representatives and include employers' and workers' organisations, business groups, and environmental organisations.</p> |
| <p>It also contains provisions that neither of the parties can derogate from, or fail to effectively either the EU nor Vietnam can derogate from, or fail to effectively enforce, any of its domestic labour and environmental laws in order to attract trade or investment. It also recognizes the right of each party to regulate in the area of labour and the environment and to establish the levels of protection it deems appropriate beyond – but not below – the commitments to ILO standards and Conventions and to MEAs.</p> <p>The agreement also espouses fair and ethical trade and other voluntary sustainable assurance schemes and CSR initiatives, where reference is made to international principles and OECD guidelines on responsible business conduct.</p> |   |  |
| <p>Sources: <a href="https://aric.adb.org/database/fta">https://aric.adb.org/database/fta</a>; accessed 9 Dec 2019<br/>Guide to EU-Vietnam: Trade and Investment Agreements, 2016</p>   |   |  |

## B. GENERALIZED SYSTEM OF PREFERENCES (GSP)

| Table 40 . GSP Programs: Philippines and Vietnam |             |         |                   |                        |
|--|-------------|---------|-------------------|------------------------|
| GSP Program                                      | Philippines | Vietnam | Labour Provisions | Environment Provisions |
| Australia GSP                                    | ✓           | ✓       | ✗                 | ✗                      |
| Belarus GSP                                      | ✓           | ✓       | ✗                 | ✗                      |
| Canada GSP                                       | ✓           | ✓       | ✗                 | ✗                      |
| EU GSP   |             | ✓       | ✓                 | ✓                      |
| EU GSP+  | ✓           |         | ✓                 | ✓                      |
| Japan GSP  | ✓           | ✓       | ✗                 | ✗                      |
| Kazakhstan GSP                                   | ✓           | ✓       | ✗                 | ✗                      |
| New Zealand GSP                                  | ✓           | ✓       | ✗                 | ✗                      |
| Russian Federation GSP                           | ✓           | ✓       | ✗                 | ✗                      |
| Switzerland GSP                                  | ✓           | ✓       | ✗                 | ✗                      |
| Turkey GSP                                       | ✓           | ✓       | ✗                 | ✗                      |
| USA GSP  | ✓           |         | ✓                 | ✗                      |

Of the 12 unilateral trade agreements that Philippines and VietNam are beneficiaries, only the GSP programs from the United States and European Union have labour provisions stipulated. Environmental provisions are included in the EU GSP+.

Below are descriptions of the EU and US GSP programs.

**Standard GSP Framework (EU GSP):** These grants duty reductions for about 66% of all EU tariff lines to low- and middle-income countries that do not benefit from any other preferential trade access to the EU Market. As of 1 January 2019, there were 15 beneficiaries of the EU standard GSP program with Vietnam as one of these countries.

The GSP is a specific instrument focussing on a single dimension only: tariff preferences for trade in goods. For goods to benefit from the preferential treatment, it must originate in Vietnam and supported by a certificate of origin. Vietnam has introduced self-certification under the system of registered exporters (REX)

Standard GSP is based on the respect of fundamental human rights and labour rights principles. It provides the possibility to revoke benefits for 'serious and systematic violations' of both human and labour rights, as well as to grant further benefits for economic and governmental growth.

**Sustainable Development and Good Governance (GSP+):** This grants duty free access to the same 66% of EU tariff lines as the Standard GSP to beneficiaries that are found to be especially vulnerable in terms of economic diversification and import volumes. In return, these countries must ratify and effectively implement 27 core international conventions, human and labor rights, environmental protection, and good governance. As of January 1, 2019, there were eight GSP+ beneficiary countries including the Philippines.

Since December 2014, Philippines enjoys enhanced trade preferences with the EU under the EU's GSP+ scheme, which provides duty-free entry for 6,274 products from the Philippines. In 2017, about PhP 120 billion (Euro 2.0 B) worth of Philippine exports benefitted from GSP+, representing an increase of

21% over 2016 figures. The largest increases in 2017 were registered for animal products (+64%), fish and related products (+71%), prepared foodstuffs (+60%), edible fruits (39%), and also automotive parts (+45%), leather (+77%), textiles (145%) and footwear (+74%). This makes the EU the Philippines' second largest export partner after Japan, and before the US and China.

Utilization of trade preference under the program was at 26% (for validation) in 2018. The following are some of the constraints to utilization:

- Stringent sanitary/food safety requirements which translate to additional costs (e.g., certification)
- Preparation of the supporting documents for the certificate of origin can be tedious and time consuming
- There are alternative markets which have lower barriers to entry and, as such, lower cost of transaction
- Lack of economies of scale --- national output/supply base is low to warrant investments
- Lack of information/limited understanding among exporters

The duties on products which are covered are relatively low. For example, coconut oil for industrial use has an MFN rate of just 2.5 %. The benefits in relative terms are heavily concentrated on prepared fish, canned tuna in particular. It is also in the tuna sector where improvements in labour conditions during the recent years were more or less significant.

The GSP+ scheme was instrumental in positively laying the reforms in work conditions in the tuna sector in General Santos. With the common objective of maintaining Philippines' GSP+ status, tripartite dialogues were conducted. New regulations were promulgated governing the working and living conditions of workers onboard fishing vessels (e.g., DOLE Department Order number 156-16). The December 2016 national-level restrictions on labour-only contractors were only seen as beneficial for labour rights in the tuna subsector. The GSP+ scheme can be an effective instrument if public and private stakeholders affirm their joint responsibility to maintaining the preferential status.

The report on the Philippines GSP+ Assessment for the period 2016-16 noted that the country had made progress on labour rights, environmental protection, gender equality, people trafficking, health, education, social-economic rights and the fight against corruption. Below is a summary of the findings: (European Commission, 19 Jan 2018)

#### UN Human Rights Conventions

- Economic growth and reforms are contributing to raising living standards in the country.
- Agenda on universal health care and job creation helped the promotion of inclusive economic growth.
- There has been Improvements in children's access to education and health continue. Action has also been taken to combat trafficking as well as sheltering children in armed conflict.
- Improvements in juvenile justice have been noted. Concerns, however, were raised on the lowering the age for criminal responsibility as this would be contrary to Philippines' obligations under the CRC.
- Although there is a narrowing of gender gap in education, decisions-making positions, and economic participations, the country has not made significant inroads in responding to the concerns raised by CEDAW.
- The campaign against illegal drugs was a matter of grave concern. The report recommended that the Philippines should effectively investigate all killings, provide access to remedies, and install the necessary safeguards so that the fight against illegal drugs takes place in accordance with human rights obligations and due process.

- The Government should actively work towards removing the proposal to re-introduce the death penalty from the legislative agenda.
- The human rights framework is fragile, with the Commission on Human Rights and other oversight bodies under threat.

#### ILO Labour Rights Conventions

- The structures and necessary policy and legal frameworks are in place to ensure the application of labour standards in the Philippines. Further efforts are needed regarding the enforcement and implementation capacities to strengthen enforcement.
- The government's socio-economic plan addresses some of the pertinent labour issues and has ended the practice of repeated hiring of workers on five-month contracts to avoid the obligation to regularize their employment status, the so-called "endo" scheme.
- Various laws have been initiated and prioritised in the Congress which aim to strengthen the implementation of the labour conventions and to address the ILO recommendations. However, their adoption is still pending.
- The Philippines has made efforts in combatting child labour and the protection of migrant workers in relation to forced labour.
- There is a need for continued and dedicated engagement in the functioning of social dialogue in the country by ensuring investigation and prevention of violence against trade unions.
- Enforcement capacities need to be improved by strengthening the labour inspection and ensuring thorough investigations and prosecutions of human trafficking cases, including child labour.
- Labour legislation should be aligned with ILO Convention 87 on freedom of association and be adopted.

#### UN Conventions on Environmental Protection and Climate Change

- The Philippines has ratified the Paris Agreement and has taken some strong measures to address environmental and climate change concerns. The key challenge is the effective implementation of these measures.
- The establishment of coal-fired power plants and the lack of details on planned actions may put into question climate change commitments. A strengthened dialogue is necessary to facilitate an environment-friendly growth agenda.

**USA GSP:** It aims to give developing countries access to US market while promoting and ensuring fair labour standards for workers in those countries. It requires member countries to adopt and enforce the basic labour standards set in the 1998 Declaration of the ILO. It also makes sure that the labour provisions are subject to the dispute settlement procedures, implying that countries that violate labour rules could be subject to sanctions.

**The US GSP is also very particular on child labour, forced labour, discrimination against women, occupational safety and health, and suppressing wages.**

GSP reporting requirements include an annual report to Congress on the status of internationally recognized worker rights, including findings of the Secretary of Labor with respect to the beneficiary country's implementation of its international commitments to eliminate the worst forms of child labour.

In both EU and US programmes, there are mechanisms in place for the suspension of benefits if developing countries do not uphold the eligibility criteria. Petitions may also be filed by individuals, organizations or any other party with 'a significant economic interest' for violation of the labour and



environment provisions. Competent bodies then investigate and decide whether to accept or reject a petition and, if a review is pursued, whether a temporary 'suspension' or full 'removal' is warranted.

## 5 VOLUNTARY SUSTAINABILITY STANDARDS: COMPARISON MATRIXS

### A. COFFEE, CACAO, AND COCONUT

| Table 43. Overview of Major VSS in coffee, cacao, and coconut  |   |  |   |   |
|--|---|--|---|---|
| 4C Code of Conduct   | UTZ   | Rainforest Alliance  | Fairtrade   | Organic   |
| Product Coverage (among products covered in this study)  |   |  |   |   |
| Coffee   | Coffee<br>Cacao<br>Coconut  | Coffee<br>Cacao<br>Coconut   | Coffee<br>Cacao<br>Coconut  | Coffee<br>Cacao<br>Coconut  |
| Owner of certification system  |   |  |   |   |
| Formerly owned by the 4C Association which evolved into the Global Coffee Platform and the Coffee Assurance Services (CAS). In 2018, the 4C Certification System and CAS (now known as 4C Services) were acquired by Meo Carbon Solutions. | In January 2018, UTZ merged with Rainforest Alliance.   | Rainforest Alliance<br><br>Rainforest Alliance also provides technical and sourcing assistance and training<br><br>Last October 2018, NEPCon has acquired the RA-Cert business unit. RA-Cert previously managed the Rainforest Alliance's certification, assurance, and auditing services. | Fairtrade International, a non-profit, multi-stakeholder association of 22 member organizations – three producer networks and 19 national Fairtrade organizations | IFOAM<br><br>European Commission: EU Organic Farming<br><br>US Department of Agriculture: USDA National Organic Program<br><br>Japan: JAS Organic |
| Description  |   |  |   |   |
| Entry level certification<br><br>The standard ensures that:<br>- Coffee cultivation is not contributing to deforestation or reduction of biodiversity  | Provides guidance on better farming methods, working conditions and care for nature.<br><br>The standard blends continuous improvement program for farm and | It is based on the fundamental principles of sustainable agriculture including: (i) best management practices; (ii) conservation of natural resources, ecosystems and wildlife; (iii) workers' rights  | It covers the following:<br><br><u>Economic criteria</u><br>- Fairtrade Minimum Price which aims to provide producers with a safety net                           | Organic farming and processing practices  |

| Table 43. Overview of Major VSS in coffee, cacao, and coconut  |  |   |  |         |
|--|--|---|--|---------|
| 4C Code of Conduct   | UTZ  | Rainforest Alliance   | Fairtrade  | Organic |
| <ul style="list-style-type: none"> <li>- Good agricultural practices and the protection of soil, water and air is applied.</li> <li>- Human, labour and land rights are respected and that farmers are sufficiently trained to increase productivity and profitability.</li> </ul> <p>Uses the following tools: GRAS, 4C Field Recorder, and transparency tool for slavery</p> | <p>processing applications, field-based adaptation of Global GAP standard, and the ILO Labour Conventions.</p> <p>The standard operates through two sets of guidelines: (i) Code of Conduct, which covers the growing and harvesting process; and (ii) Chain of Custody, which covers products from the moment they leave the farm to when they arrive on the shelves.</p> <p>The Code of Conduct has two versions tailored specifically to the needs of large individual farms and groups of smaller farms.</p> <p>A license is granted by UTZ to use the UTZ trademarks and to use the UTZ traceability system to record transactions, and manage and store labelling approvals of UTZ products. All certified members and other members that trade pure UTZ certified product (UTZ product that has not been mixed with other ingredients shall hold a valid license.</p> | <p>and benefits; and (iv) benefits to local communities.</p> <p>It has two sets of certifications: (i) Sustainable Agriculture Certification – farms; and (ii) Chain of Custody. Certified farms must sign a license agreement to sell products with the Rainforest Alliance name or RAC seal and obtain approval via the Rainforest Alliance Certified Marketplace to use any Rainforest Alliance trademarks</p> <p>Chain of Custody (CoC) certification enables Rainforest Alliance Certified™ material in a product to be traced from farm to shelf.</p> <p>Any organisation that buys, sells, or mixes material from Rainforest Alliance Certified farms must hold CoC certification or endorsement in order to promote their products as certified. Retailers however do not need certification.</p> | <p>against falling prices and allow long-term planning.</p> <ul style="list-style-type: none"> <li>- Fairtrade Premium that provides farmers and workers with additional money to invest in improving the quality of their businesses and communities.</li> <li>- Long-term trading partnerships and requires buyers to provide pre-financing to producers who request it, opening access to capital to help stabilize their operations.</li> </ul> <p><u>Environmental criteria</u></p> <ul style="list-style-type: none"> <li>- Ecologically and agriculturally sound practices</li> <li>- Prohibits the use of hazardous materials and all genetically modified organisms (GMOs).</li> <li>- Organic production is promoted and rewarded by higher Fairtrade Minimum Prices for organically grown products.</li> </ul> <p>Social Criteria</p> |         |

| Table 43. Overview of Major VSS in coffee, cacao, and coconut  |  |   |  |                                  |
|--|--|---|--|----------------------------------|
| 4C Code of Conduct   | UTZ  | Rainforest Alliance   | Fairtrade  | Organic                          |
|  |  |   | <ul style="list-style-type: none"> <li>- Democratic self-organization, participatory decision-making, transparency, and non-discrimination (including gender equity).</li> <li>- Non-discriminatory employment practices, pay rates equal to or higher than the legal or regional minimum wages, freedom of association and collective bargaining rights for the workforce, safeguards for worker safety and health, and facilities to allow workers to manage the Fairtrade Premium.</li> <li>- Forced labour and child labour are prohibited under the Fairtrade Standards.</li> </ul> |                                  |
| Who can be certified   |  |   |  |                                  |
| <p>4C unit and its members</p> <p>A 4C unit can be a cooperative, association, collecting station, mill, local trader, and a roaster.</p> <p>Requirements to become a 4C unit:</p> | <p>Code of Conduct: farmers and farmer groups</p> <p>Chain of custody: supply chain actors (SCAs)</p> <ul style="list-style-type: none"> <li>- Take legal ownership of UTZ certified product</li> <li>- Physically handle UTZ certified product</li> </ul> | <p>Sustainable Agriculture Certification: farmers and farmer groups</p> <p>Chain of Custody: supply chain actors</p> <ul style="list-style-type: none"> <li>- Any entity that takes physical and/or legal possession of a Rainforest certified product</li> </ul> | <p>Producer organizations</p> <p>Traders</p> <p>Companies</p>  | <p>Farmers</p> <p>Processors</p> |

| Table 43. Overview of Major VSS in coffee, cacao, and coconut  |  |  |  |  |
|--|--|--|--|--|
| 4C Code of Conduct   | UTZ  | Rainforest Alliance  | Fairtrade  | Organic  |
| <ul style="list-style-type: none"> <li>- Be able to produce and supply a minimum of 20 tons of green coffee beans</li> <li>- Have a person or a group of people (Managing Entity) who can ensure the implementation of the 4C Code of Conduct</li> </ul>   | <ul style="list-style-type: none"> <li>- Make product claims about UTZ</li> </ul> <p>SCAs who physically handle a small volume shall comply with the applicable requirements from the Chain of Custody but may be exempt from having to receive a certification audit and becoming certified.</p> <ul style="list-style-type: none"> <li>- Coffee: 200 MT of green coffee equivalent</li> <li>- Cocoa: 100 MT of cocoa bean equivalent</li> </ul>  | <ul style="list-style-type: none"> <li>- Any entity that acts as a contractor handling Rainforest certified product</li> <li>- Make product claims about Rainforest certification</li> </ul>   |  |  |
| Certification system and process   |  |  |  |  |
| <p><u>Organization of 4C Unit</u><br/>Initial assessment of level of compliance to 4C codes<br/>Set-up of 4C Internal Management System</p> <p><u>Certification Process</u><br/>On-site audit<br/>Preparation of improvement plan<br/>Audit report evaluation<br/>Certification decision</p> <p><u>Certification Maintenance</u><br/>Continuous improvement<br/>Annual updates – end of year 1 and 2</p> | <p><u>Steps</u></p> <ul style="list-style-type: none"> <li>- Membership registration</li> <li>- Self-assessment</li> <li>- Audit by selected certifying body</li> <li>- Corrective actions</li> <li>- Physical or desk review audit by certifying body</li> <li>- Certification decision</li> <li>- Issuance of UTZ license and certificate</li> </ul> <p>Coffee: no limit to the geographical scope of Chain of Custody certification</p> <p>Cocoa: sites may only be certified together and included</p> | <p><u>Sustainable Agriculture Certification</u><br/>Document submission<br/>Self-assessment/ compliance to standards<br/>On-site audit<br/>Reporting and certification</p> <p>Subject to annual audits for the three-year certification period validity.</p> <p><u>Chain of Custody</u><br/>Certification audit: occurs at the start of each three-year certification cycle.</p> | <p>Self-assessment<br/>Onsite audit<br/>Audit report<br/>Corrective actions<br/>Certification</p> <p>Up to two confirmation audits normally take place during the three-year certification period. This assessment is based on monitoring of routine data, including amounts received and paid (including Fairtrade Premium), as well as the individual organization's set-up.</p> | <p>Self-assessment<br/>Onsite audit<br/>Corrective actions<br/>Issuance of certification</p> |

| Table 43. Overview of Major VSS in coffee, cacao, and coconut                               |  |  |           |         |
|---|--|--|-----------|---------|
| 4C Code of Conduct  | UTZ  | Rainforest Alliance  | Fairtrade | Organic |
| <p>Application for renewal of certificate</p> <p>Certification is valid for three years</p> | <p>in the same certificate if they are from the same country or geographical bloc (EU, NAFTA, ASEAN, etc.)</p> | <p>Annual audit: evaluates minor non-conformities from previous audit; conducted between 3 months before and 3 months after the anniversary date of the certificate.</p> <p>Verification audit: evaluate corrective actions addressing nonconformities identified during previous audit(s); may be a desk verification audit</p> <p>Research audit: may be conducted at any time during the certification cycle in response to a claim or complaint with the potential to result in a major nonconformity. Cost of a research audit will be charged to the company if: (i) the complaint is confirmed; or, (ii) major nonconformities are found during the audit.</p> <p>Non-programmed audit: carried out by the certifying body as a method of supervision with respect to conformity with the applicable standards and policies for the</p> |           |         |

| Table 43. Overview of Major VSS in coffee, cacao, and coconut  |  |   |  |   |
|--|--|---|--|---|
| 4C Code of Conduct   | UTZ  | Rainforest Alliance   | Fairtrade  | Organic   |
|  |  | <p>purpose of maintaining the credibility of the scheme.</p> <p>Global multi-site certificates may be granted when the following criteria are met: (i) all sites are under a common ownership structure; and (ii) all sites operate under the same integrated management system that has authority and responsibilities beyond those related solely to certification.</p> |  |   |
| Certifying body  |  |   |  |   |
| 4C Services collaborates with approved certification bodies operating in coffee producing countries that are ISO/ IEC 17065 (agricultural scope) accredited                | Only certifying bodies that have been approved by UTZ and compliant with ISO 17065 and/or ISO 17021  | Only certifying bodies that have been approved by Rainforest Alliance and compliant with ISO 17065 and/or ISO 17021.  | FLOCERT is the main independent certifier for Fairtrade  | Approved/accredited certifying bodies   |
| Validity of certification  |  |   |  |   |
| 3 years  | 1 year   | 3 years   | 3 years  | 5 years   |
| Audit duration and frequency   |  |   |  |   |
| <p>External audit: 1 to 2 weeks</p> <p>Audit per production site:</p> <p>Less than 5 ha: 1 day</p> <p>5 to 20 ha: 2 to 3 days</p> <p>21 ha and above: 4 and above days</p> | <p>External audit: 1 to 2 weeks</p> <p>Sampling for farmer group certification: square root of number of plots (individually certified farm) or producers in group; each site for multi-site</p> | <p>External audit: 1 to 2 weeks</p> <p>Sampling for farmer group certification: square root of number of producers in group, but up to 1.4 times that for high risk, or half that for</p>   | <p>External audit: 1 to 2 weeks</p> <p>Different minimum numbers set for members and workers at different types of organizations, based on size.</p> | <p>External audit: 1 to 2 weeks</p> <p>Sampling: follows the square root approach</p> |

| Table 43. Overview of Major VSS in coffee, cacao, and coconut   |   |   |  |   |
|---|---|---|--|---|
| 4C Code of Conduct  | UTZ   | Rainforest Alliance                                     | Fairtrade  | Organic   |
| <p><u>Sample selection</u><br/>50% of square root of number of farmers based on risk assessment; a portion must be resampled in next audit to ensure continuous improvement</p> <p>Workers “if available,” with “all efforts” to ensure confidentiality; verifier to determine number</p> | <p>estates; randomly selected plus high risk; different sample each time</p> <p>Worker interviews are anonymous and without supervisors, but need not be off premises</p> | <p>surveillance audits of “high-performing clients”</p> | <p>Auditors aim to interview workers at each farm or processing plant visited.</p> |   |
| Equivalence   |   |   |  |   |
| <p>FSA-SAI Silver Level equivalent</p> <p>GCP’s Baseline Common Code</p> <p>In line with IEH’s Ethical Trade Principles</p>   | Rainforest Alliance   | UTZ   | None   | <p>IFOAM: no mutual recognition</p> <p>JAS Organic: equivalence in 27 countries in the EU, Australia, USA, Argentina, New Zealand, and Switzerland</p> <p>USDA NOP: USA currently has organic trade agreements that allow USDA organic products to be exported to Canada, the European Union, Japan, and Taiwan as long as the terms of the agreement are met.</p> <p>EU Organic Farming: equivalence arrangements with Argentina, Australia, Canada, Costa Rica, India, Israel, Japan,</p> |









| Table 43. Overview of Major VSS in coffee, cacao, and coconut                    |   |  |  |   |
|--|---|--|--|---|
| 4C Code of Conduct   | UTZ   | Rainforest Alliance  | Fairtrade  | Organic   |
|  |   |  |  | New Zealand, Republic of Korea, Switzerland, Tunisia, USA, and members of the European Economic Area (Norway and Iceland)                                 |
| Traceability/Chain of Custody  |   |  |  |   |
| Traceable from 4C Unit to producer/roaster<br><br>Traceability type: segregation | Traceable from roaster to producer following supply chain roles.<br><br>Traceability types: identity preserved, segregation, and mass balance<br><br>Audited chain-of custody for logo users<br><br><u>Traceability system</u><br>MultiTrace: coffee<br>Good Inside Portal: cocoa | Traceability types: Segregated, Traceable to the Country of Origin, Traceable to a Certificate Holder (Identity Preserved), and Mass Balance<br><br>Traceability system: Marketplace | Every farmer, trader, processor and manufacturer must be certified for the end product to carry the Fairtrade Mark. This allows for transparency throughout the product supply chain.<br><br>Traceability type: mass balance and segregation | Organic products traceable from retailer to producer.<br><br>Traceability type: segregation   |
| Premium Price  |   |  |  |   |
| No fixed premium or fixed price for coffee supplied by certified 4C Units        | UTZ premium is mandatory and agreed upon between the UTZ Code of Conduct certified group or producer and the first buyer, is net of any deductions for repayment of pre-financed goods or services, and is registered in the UTZ Good Inside Portal.                              | No minimum or guaranteed prices, although many producers receive a premium. Prices are determined in a negotiation process between the buyer and seller.                             | Producers receive the Fairtrade Minimum Price and Premium  | Premiums versus non organic certified coffees are paid to farmers.<br><br>Average price differentials of US\$ 0.255 (+/-) per pound are paid to producers |
| Fees and costs   |   |  |  |   |

| Table 43. Overview of Major VSS in coffee, cacao, and coconut  |         |      |  |         |      |  |         |      |  |         |      |                                     |         |      |  |
|--|---------|------|--|---------|------|--|---------|------|--|---------|------|-------------------------------------|---------|------|--|
| 4C Code of Conduct   |         |      | UTZ  |         |      | Rainforest Alliance  |         |      | Fairtrade  |         |      | Organic                             |         |      |  |
| Yearly membership fees for all actors along the chain according to size and position in chain. Producer’s fee is smallest.<br><br>Audit fee (certifying body): US\$ 300 to 600/day |         |      | <u>Programme fee (paid to UTZ)</u><br>Cocoa: US\$ 12.90/MT of cocoa bean equivalent paid by 1 <sup>st</sup> buyer                                |         |      | Code of Conduct: Audit fees + travel expenses + administrative fees  |         |      | Certification fees depend on the size of the organization and the role it plays in the Fairtrade system.   |         |      | Audit fees: US\$ 400 to 700 per day |         |      |  |
|  |         |      | Coffee: Euro 26.50/MT of green coffee bean equivalent paid by 1 <sup>st</sup> buyer  |         |      | CoC: Auditing fee + Travel Expenses+Programme Fee<br>The auditing fee depends on the size and complexity of the company and its Chain of Custody system.                                 |         |      | Buyers are not charged a licensing fee, but they must pay at least the Fair Trade Minimum Price and provide up to 60% of pre-harvest financing when requested by cooperatives. |         |      |                                     |         |      |  |
|  |         |      | <u>Audit costs</u><br>Depends on size of production unit to be audited.  |         |      | <u>Programme Fee/Royalty</u><br>Cocoa: US\$0.0129 per kilogram of cocoa beans --- if beans are exported, this is paid by exporter; if for local processing, this is paid by first buyer. |         |      | Licensed roasters pay TransFair USA US\$ 0.10 per pound to cover the cost of audits, consumer awareness campaigns and FLO affiliation  |         |      |                                     |         |      |  |
|  |         |      | Audit fee can be up to US\$ 5,000 for first audit; 2 <sup>nd</sup> audit to check on implementation of corrective actions can be up to US\$ 2500 |         |      | Coffee: US\$0.015 per pound of Green Coffee Beans --- if exported, this is paid by importer; if for local processing, this is paid by first buyer  |         |      |  |         |      |                                     |         |      |  |
| Frequency of standard revision   |         |      |  |         |      |  |         |      |  |         |      |                                     |         |      |  |
| Every 5 years  |         |      | Every 5 years  |         |      | Every five years   |         |      | Every five years   |         |      | Every five years                    |         |      |  |
| Summary of Extent of coverage: Ranking and Score   |         |      |  |         |      |  |         |      |  |         |      |                                     |         |      |  |
| Thematic Area  | Score   | Rank | Thematic Area  | Score   | Rank | Thematic Area  | Score   | Rank | Thematic Area  | Score   | Rank | Thematic Area                       | Score   | Rank |  |
| Overall  | 340/435 | 1    | Overall  | 263/435 | 2    | Overall  | 245/435 | 3    | Overall  | 159/435 | 5    | Overall                             | 174/435 | 4    |  |
| Environment  | 108/145 | 2    | Environment  | 82/145  | 4    | Environment  | 123/145 | 1    | Environment  | 80/145  | 5    | Environment                         | 90/145  | 3    |  |
| Social/Labour  | 105/135 | 1    | Social/Labour  | 92/135  | 2    | Social/Labour  | 87/135  | 3    | Social/Labour  | 56/135  | 4    | Social/Labour                       | 50/135  | 5    |  |
| Management   | 38/47   | 1    | Management   | 27/47   | 2    | Management   | 19/47   | 4    | Management   | 21/47   | 3    | Management                          | 9/47    | 5    |  |
| Quality  | 68/85   | 1    | Quality  | 57/85   | 2    | Quality  | 8/85    | 5    | Quality  | 16/85   | 4    | Quality                             | 25/45   | 3    |  |

| Table 43. Overview of Major VSS in coffee, cacao, and coconut  |       |   |   |      |   |  |      |   |   |      |   |   |      |   |
|--|-------|---|---|------|---|--|------|---|---|------|---|---|------|---|
| 4C Code of Conduct   |       |   | UTZ   |      |   | Rainforest Alliance  |      |   | Fairtrade   |      |   | Organic   |      |   |
| Ethics   | 21/23 | 1 | Ethics  | 5/23 | 4 | Ethics   | 8/23 | 2 | Ethics  | 7/23 | 3 | Ethics  | 0/23 | 5 |
| For coffee VSS, 4C has the widest coverage overall. It also ranks first in social/labour and quality/food safety. It ranks second in environmental coverage.   |       |   | For cocoa beans and coconut, UTZ is the top VSS. It has the widest coverage in terms of social/labour and quality/food safety. It is, however, relatively weak in terms of environment. |      |   | The VSS is strong in terms of environmental coverage. The Rainforest Alliance focuses relatively more intensely on decreasing the environmental impact of agricultural crop production. It is relatively weak though in terms of food safety and quality. The merged UTZ and Rainforest Alliance will most likely address their respective weaknesses making it the more stronger VSS. |      |   | Fairtrade is not so strong in coverage of the priority thematic areas of this study.<br><br>The focus of Fairtrade is on changing relationships in the supply chain and delivering a larger share of the benefits to smallholder producers. |      |   | Organic VSS is moderately strong in terms of environment and quality but weak in social/labour. |      |   |
| The focus of the VSS is on improving producers' agro-ecological practices and helping them become more productive as the primary means to improving livelihoods and achieving increased sustainability |       |   | It also focuses on improving agricultural practices as platform for promoting sustainable livelihoods.  |      |   |  |      |   |   |      |   |   |      |   |

➤ Key Standards requirements and level of coverage and complexity

COFFEE, COCOA and COCONUT: There are 69 standards relevant to the sectors as per ITC Sustainability Map)

| Table 44. Major VSS in Meat: Comparison of Principles and Critical Control Points |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |   |   |   |   |   |
|   | FAIR TRADE  | ILO   | UTZ   | 4C  | ORGANIC IFOAM   | RAINFORREST ALLIANCE RA   |
|   |  |  |  |  |  |  |
| OVERALL   | 159/435   | 169/435   | 263/435   | 340/435   | 174/435   | 245/435   |
| ENVIRONMENT   | 80/145  | 82/145  | 82/145  | 108/145   | 90/145  | 123/145   |
| SOIL  | 6/13  | 0/13  | 9/13  | 11/13   | 1/13  | 11/13   |
| FOREST  | 5/8   | 0/8   | 5/8   | 7/8   | 0/8   | 7/8   |
| INPUTS  | 18/32   | 2/32  | 20/32   | 29/32   | 22/32   | 23/32   |
| BIODIVERSITY  | 20/33   | 0/33  | 23/33   | 29/33   | 20/33   | 27/33   |
| LIVESTOCK   | 0/7   | 0/7   | 0/7   | 0/7   | 28/7  | 19/7  |
| WASTE   | 11/21   | 0/21  | 11/21   | 15/21   | 10/21   | 17/21   |
| WATER   | 10/14   | 0/14  | 9/14  | 13/14   | 6/14  | 10/14   |
| ENERGY  | 4/7   | 0/7   | 4/7   | 5/7   | 3/7   | 4/7   |

**Table 44. Major VSS in Meat: Comparison of Principles and Critical Control Points**

| REQUIREMENTS  | KEY STANDARDS |               |               |                |               |                         |
|---|---------------|---------------|---------------|----------------|---------------|-------------------------|
|   | FAIR TRADE    | ILO           | UTZ           | 4C             | ORGANIC IFOAM | RAINFORREST ALLIANCE RA |
| CLIMATE-CARBON  | 6/7           | 0/7           | 1/7           | 2/7            | 0/7           | 5/7                     |
| <b>SOCIAL</b>   | <b>56/135</b> | <b>85/135</b> | <b>92/135</b> | <b>105/135</b> | <b>50/135</b> | <b>87/135</b>           |
| Human Rights And Local Communities                          | 13/33         | 19/33         | 15/33         | 21/33          | 8/33          | 16/33                   |
| Labor Practices - Conditions Of Work and Social Protection  | 19/30         | 18/30         | 25/30         | 28/30          | 9/30          | 21/30                   |
| Labor Practices - Employment and Employment Relationships   | 24/46         | 36/46         | 32/46         | 41/46          | 19/46         | 35/46                   |
| Labor Practices - Human Development and Social Dialogue     | 18/26         | 12/26         | 20/26         | 23/26          | 4/26          | 15/26                   |
| <b>MANAGEMENT</b>   | <b>21/47</b>  | <b>1/47</b>   | <b>27/47</b>  | <b>38/47</b>   | <b>9/47</b>   | <b>19/47</b>            |
| Economic Viability  | 3/6           | 0/6           | 5/6           | 6/6            | 0/6           | 3/6                     |
| Sustainability Management                                   | 7/21          | 1/21          | 15/21         | 16/21          | 9/21          | 12/21                   |
| Supply Chain Responsibilities                               | 11/20         | 0/20          | 7/20          | 16/20          | 3/20          | 4/20                    |
| <b>QUALITY</b>  | <b>16/85</b>  | <b>0/85</b>   | <b>57/85</b>  | <b>68/85</b>   | <b>25/85</b>  | <b>8/85</b>             |
| Product / Service Quality Management                        | 5/24          | 0/24          | 19/24         | 22/24          | 8/24          | 1/24                    |
| Food/Feed Management Systems                                | 11/61         | 0/61          | 38/61         | 46/61          | 17/61         | 7/61                    |
| <b>ETHICS</b>   | <b>7/23</b>   | <b>1/23</b>   | <b>5/23</b>   | <b>21/23</b>   | <b>0/23</b>   | <b>8/23</b>             |
| Ethics: Anti-Corruption and Bribery Principles And Criteria | 3/18          | 0/18          | 0/18          | 18/18          | 0/18          | 3/18                    |

**Table 44. Major VSS in Meat: Comparison of Principles and Critical Control Points**

| REQUIREMENTS   | KEY STANDARDS |     |     |     |                  |                           |
|--|---------------|-----|-----|-----|------------------|---------------------------|
|  | FAIR TRADE    | ILO | UTZ | 4C  | ORGANIC<br>IFOAM | RAINFOREST<br>ALLIANCE RA |
| Ethics: Compliance to National, Regional And International Legislation | 4/5           | 1/5 | 5/5 | 3/5 | 0/5              | 5/5                       |

## B. MEAT

| Table 45. Overview of Major VSS in meat   |   |  |  |  |
|---|---|--|--|--|
| GLOBAL RED MEAT STANDARD (GRMS)   | GLOBALG.A.P. LIVESTOCK  | SMIIC HALAL FOOD   | FSSC 22000   | INTERNATIONAL FEATURED STANDARDS (IFS)   |
| Product Coverage (among products covered in this study)   |   |  |  |  |
| Red Meat  | Livestock   | Livestock  | Meat   | Meat   |
| Owner of certification system   |   |  |  |  |
| <p>Owned and managed by the Danish Agriculture and Food Council. The Standard finances itself via industry levy funding and the registration fees paid to the Certification Bodies for the issuing of certificates and audit reports. All revenues are used for developing and improving the GRMS.</p> <p>The standards were developed by the Danish Agriculture and Food Council in partnership with its abattoir members and the Danish Meat Research Institute.</p> <p>The Global Red Meat Standard was first published in 2006.</p> | <p>GLOBALG.A.P.'s roots began in 1997 as EUREPGAP, an initiative by retailers belonging to the Euro-Retailer Produce Working Group.</p> <p>FoodPLUS GmbH, a limited liability cooperation registered in Cologne, Germany, manages all company's activities worldwide from standard setting through services for its partners, marketing, certification management to integrity. It serves as legal entity to hold the international GLOBALG.A.P. and GGN (consumer label for GLOBALG.A.P. certified farms) copyrights.</p> <p>FoodPLUS GmbH is governed by an elected Board consisting of an equal number of representatives from retail/foodservice and producer/ supplier organizations. Financial and legal ownership of</p> | <p>This standard was developed by the Standardization Expert Group (SEG) of the Organisation of the Islamic Conference (OIC), and adopted by the Standards and Metrology Institute for Islamic Countries (SMIIC) Technical Committee on Halal Food Issues.</p> <p>The SMIIC Statute was ratified by 13 OIC member states : are: Algeria, Cameroon, Guinea, Jordan, Libya, Mali, Morocco, Pakistan, Somalia, Sudan, Tunisia, Turkey, and United Arab Emirates.</p> <p>The Standardization Management Council (SMC) is responsible for the development of OIC/SMIIC standards in cooperation with Member States.</p> | <p>The FSSC 22000 Scheme is managed by Foundation FSSC 22000 and governed by an independent Board of Stakeholders which consists of representatives from several sectors in the food industry.</p> | <p>Managed by an IFS Working Group consisting of experts from the retail and food industry and the certification bodies.</p> |

| Table 45. Overview of Major VSS in meat   |  |  |  |  |
|---|--|--|--|--|
| GLOBAL RED MEAT STANDARD (GRMS)   | GLOBALG.A.P. LIVESTOCK   | SMIIC HALAL FOOD   | FSSC 22000   | INTERNATIONAL FEATURED STANDARDS (IFS)   |
|   | FoodPLUS GmbH is held by the EHI Retail Institute.<br>GLOBALG.A.P. North America Inc. is a USA corporation whose sole owner is FoodPLUS GmbH.  |  |  |  |
| Description   |  |  |  |  |
| <p>The objective of the GRMS is to deliver transparency on food safety, quality and hygiene in factories that slaughter, cut, debone and handle meat and meat products. The transparency is delivered through an independent certification process based on ISO/IEC 17065.</p> <p>Key features include:</p> <ul style="list-style-type: none"> <li>- Covers similar core areas as other commercial standards, but is dedicated to meat production</li> <li>- Covers animal welfare, the working and external environments</li> <li>- Focus on areas critical for maintaining high meat safety and quality</li> <li>- Provides a more detailed basis for assessing meat and meat products</li> </ul> | <p>A pre-farm gate standard that covers the process until the product leaves the farm.</p> <p>The GLOBALG.A.P. Integrated Farm Assurance (IFA) Standard consists of General Rules and Control Points and Compliance Criteria (CPCC.)</p> <p>The GLOBALG.A.P. IFA CPCC are modular-based consisting of:</p> <ul style="list-style-type: none"> <li>• <b>The All Farm Base Module:</b> This is the foundation of all sub-scopes and defines all the requirements that all producers must first comply with to gain certification.</li> <li>• <b>The Scope Module:</b> This defines clear criteria based on the different food production sectors. GLOBALG.A.P. covers 3 scopes: Crops, Livestock and Aquaculture.</li> </ul> | <p>The Halal certificate is a document that guarantees that products and services aimed at the Muslim population meet the requirements of Islamic law and therefore are suitable for consumption in both Muslim-majority countries and in Western countries where there are significant population group who practice Islam.</p> <p>For meat products Halal certifies that the animals were slaughtered in a single cut, thoroughly bled, and their meat have not been in contact with animals slaughtered otherwise and, especially, with pork. Products that are Halal certified are often marked with a Halal symbol.</p> | <p>The Foundation Food Safety System Certification 22000 (FSSC 22000) offers a complete certification Scheme for the auditing and certification of Food Safety Management Systems (FSMS) and Quality Management Systems (FSSC 22000-Quality).</p> <p>The FSSC standard for Food Manufacturing is fully based on the international, independent standards: ISO 22000, ISO 22003 with sector specific technical specifications.</p> <p>A voluntary ISO 9001:2015 module has been added to the FSSC 22000 Scheme, making it possible to offer combined FSSC 22000 and ISO 9001 certification.</p> | <p>The International Featured Standards (IFS) comprise eight different food and non-food standards, covering the processes along the supply chain. However, IFS does not specify what these processes must look like but merely provides a risk-based assessment of them.</p> <p>IFS Food includes requirements on:</p> <ul style="list-style-type: none"> <li>- Senior management responsibility</li> <li>- Quality and food safety management systems</li> <li>- Resource management</li> <li>- Production process</li> <li>- Food defence</li> </ul> <p>IFS approach is risk-based. The requirements give every company the chance to develop their own solution which fits</p> |



| Table 45. Overview of Major VSS in meat |   |                  |            |  |
|---|---|------------------|------------|--|
| GLOBAL RED MEAT STANDARD (GRMS)         | GLOBALG.A.P. LIVESTOCK  | SMIIC HALAL FOOD | FSSC 22000 | INTERNATIONAL FEATURED STANDARDS (IFS)   |
|   | <ul style="list-style-type: none"> <li>• <b>The Sub-scope Module:</b> These CPCC cover all the requirements for a particular product or different aspect of the food production and supply chain.</li> </ul> <p>The scopes (e.g. livestock) are automatically coupled to the sub-scopes that a producer or producer group applies for. For example, a poultry producer must comply with the All Farm Base, the Livestock scope module, and the Poultry CPCC to receive a GLOBALG.A.P. Poultry Standard Certificate.</p> <p>Livestock producers are also required to source their compound feed from reliable suppliers. The GLOBALG.A.P. Compound Feed Standard helps livestock producers find GLOBALG.A.P. certified compound feed manufacturers.</p> <p>GRASP is a voluntary ready-to-use module designed to assess social practices on the farm. The requirements catalogue consists of 11 standardized requirements</p> |                  |            | <p>the processes and needs of the company.</p> <p>Smartphones, tablets, and apps are already integrated in IFS' daily business of certified companies through the IFS App – IFS Audit Manager.</p> |

| Table 45. Overview of Major VSS in meat  |   |   |  |  |
|--|---|---|--|--|
| GLOBAL RED MEAT STANDARD (GRMS)  | GLOBALG.A.P. LIVESTOCK  | SMIIC HALAL FOOD  | FSSC 22000   | INTERNATIONAL FEATURED STANDARDS (IFS)   |
|  | and one additional QMS requirement that address specific aspects of workers' health, safety and welfare. GRASP is designed to extend the social standards of your GLOBALG.A.P. Certification.   |   |  |  |
| Who can be certified   |   |   |  |  |
| The Standard comprises the entire productions chain --- transport, lairage, stunning, slaughtering, deboning, cutting and handling of meat and meat products.<br>All actors in the supply chain can apply for certification. | GLOBALG.A.P. Livestock Certification: producers and producer groups (Cattle & Sheep; Dairy; Calf & Young Beef; Pigs; Poultry; Turkey).<br><br>Chain of custody: The CoC Standard is an essential certificate for all producers and retailers handling GLOBALG.A.P. certified products | Producers, manufacturers, traders, and retailers  | FSSC 22000 is applicable to all organizations in the food chain. ISO 22000 certified manufacturers can obtain FSSC 22000 certification by meeting the requirements of technical specifications for sector PRPs and the additional scheme requirements.<br><br>Food Industry<br>producers/farmers, manufacturers, retailers | Manufacturers, brokers, logistics providers, retailers   |
| Certification system and process   |   |   |  |  |
| <u>Certification Process</u><br>- On-site audit<br>- Opening meeting<br>- Check of documentation on site<br>- Site assessment<br>- Preparation of non-conformities   | <u>Steps</u><br>• Self-assessment using the checklist and implementation of corrective measures.<br>• Inspector from certification body conducts on-site inspection.  | The audit programme includes a two-stage initial audit (Stage 1 and Stage 2), surveillance audit in the first and the second year, and a re-certification audit in the third year prior to expiration of certification. | <u>FSSC Global Markets Certification Program Process:</u><br>a) Foundation Level Conformity Statement<br>b) Intermediate Level Conformity Statement<br>c) FSSC22000 Certificate  | <u>Audit process:</u><br>- Audit schedule<br>- Opening meeting<br>- Evaluation of existing quality and food safety systems (HACCP, quality management documentation)<br>- On-site inspection |

| Table 45. Overview of Major VSS in meat                             |  |   |  |  |
|---|--|---|--|--|
| GLOBAL RED MEAT STANDARD (GRMS)                                     | GLOBALG.A.P. LIVESTOCK   | SMIIC HALAL FOOD  | FSSC 22000   | INTERNATIONAL FEATURED STANDARDS (IFS)   |
| <ul style="list-style-type: none"> <li>- Closing meeting</li> </ul> | <ul style="list-style-type: none"> <li>• Once all requirements have been complied with, a GLOBALG.A.P. Integrated Farm Assurance Standard certificate will be issued.</li> </ul> <p>If an upgrade of the existing GLOBALG.A.P. Certificate is needed, to demonstrate the commitment to advancing Good Agricultural Practice to retailers and buyers, one can apply for a GLOBALG.A.P.+ Add-On to enhance the core product and adapt it better to any environment.</p> <p>GLOBALG.A.P. Add-Ons</p> <ul style="list-style-type: none"> <li>- Animal Welfare Add-ons for Pigs and Broiler Chickens</li> <li>- Sustainable Meat Initiative Add-on for Finishing Pigs for the Dutch Market</li> </ul> | <p>The interval between stage 1 and stage 2 audits is about 6 months or less. The stage 1 audit should be repeated if a longer interval is needed.</p> <p><u>Audit process:</u></p> <ul style="list-style-type: none"> <li>- Inspection of the raw material storage, preparation, packing and finished goods storage areas.</li> <li>- Assessment of production lines and machinery to ensure that it is solely for Halal use and no risk of contamination with non-Halal products/materials.</li> <li>- Laboratory testing may be required</li> <li>- Review of documentation required and stipulated in the Halal Assurance Procedures Manual</li> <li>- Discussion of plan with Management.</li> </ul> | <p><u>Certification Audit Process:</u></p> <p>Stage 1 audit: verifies that the system has been designed and developed in accordance with the organization's top management commitment to conform with Scheme requirements. The objective of this audit is to assess the preparedness of the applicant organization to proceed to the stage 2 audit.</p> <p>Stage 2 audit: substantiates top management's claim by auditing implementation of the food safety management system.</p> <p>Upgrade audits (surveillance and re-certification) are conducted announced, unless the organization specifically indicates the wish for an unannounced upgrade audit.</p> | <ul style="list-style-type: none"> <li>- Final conclusions drawn from the audit</li> <li>- Closing meeting</li> <li>- Audit report</li> <li>- Certification decision</li> </ul> <p>The audit scope includes the complete activity of the company and not only the production line for retailer/wholesaler branded products. The audit is specific to the site where all the processing of the product is undertaken. The scope of the audit is defined and agreed between the company and the certification body before the audit takes place.</p> |
| Certifying body   |  |   |  |  |
| GRMS works only with Certification Bodies that have                 | Only certifying bodies approved/ accredited by GlobalGAP   | Certification bodies accredited and approved by SMIIC. Accreditation is aimed at  | The certification body is required to extend its current ISO/IEC 17021-1:2015  | Certification bodies accredited and approved by IFS  |

| Table 45. Overview of Major VSS in meat   |  |   |  |   |
|---|--|---|--|---|
| GLOBAL RED MEAT STANDARD (GRMS)   | GLOBAL G.A.P. LIVESTOCK  | SMIIC HALAL FOOD  | FSSC 22000   | INTERNATIONAL FEATURED STANDARDS (IFS)  |
| GRMS within their ISO/IEC 17065 accreditation scope.  |  | <p>facilitating the recognition of such bodies and the acceptance of their certifications on a national and international or OIC/SMIIC basis.</p> <p>The accreditation guidelines draw on ISO/IEC Guide 65, ISO/IEC 17021:2006 and ISO/TS 22003:2007.</p> | accreditation scope to include FSSC 22000 V5   |   |
| Validity of certification   |  |   |  |   |
| 1 year  | 1 year   | 3 years   | 3 years  | 1 year  |
| Audit duration and frequency  |  |   |  |   |
| <p>External audit: 1 to 2 weeks<br/>Audit per production site: 2 days</p> <p>Calculation policy based in number of workers at facility, volume of production, and other factors</p> <p>Annual audits</p> <p>Follow-up audits will be carried out when the documented corrective actions for major non-conformities are not accepted by the Certification Body</p> | <p><b>Option 1</b> (Single producer with or without an optional Quality Management System)<br/>External audit: 1 to 2 weeks</p> <p><b>Option 2</b> (Multiple producers with a mandatory Quality Management System)<br/>External audit: 1-2 months</p> <p>Sampling for farmer group certification: square root of number of plots (individually certified farm) or producers in group; each site for multi-site estates; randomly selected plus</p> | <p>External audit: 1 to 2 weeks<br/>Audit per production site: 5 days</p> <p>Certification will be suspended or cancelled at any time when the certified organization is found to contravene the OIC/SMIIC standard</p>                                   | <p>External audit: 1 to 2 weeks 0.5 – 1 auditor day (4-8 working hours, depending on the size of the organization) for the audit on the implementation of the relevant Pre-Requisite Program(s).</p> <p>The CB will issue the certificate within 30 calendar days from the date of the certification decision. The certificate expires three years after the date of the initial certification decision.</p> | <p>External audit: 1 to 2 weeks</p> <p>IFS has implemented a tool to calculate the minimum audit duration based on the following criteria:</p> <ul style="list-style-type: none"> <li>- Total number of people (part time workers, shift workers, temporary staff, administrative people, etc.)</li> <li>- Number of product scopes</li> <li>- Number of processing steps</li> </ul> <p>Annual audits</p> |

| Table 45. Overview of Major VSS in meat   |   |   |  |  |
|---|---|---|--|--|
| GLOBAL RED MEAT STANDARD (GRMS)   | GLOBALG.A.P. LIVESTOCK  | SMIIC HALAL FOOD  | FSSC 22000   | INTERNATIONAL FEATURED STANDARDS (IFS)   |
|   | high risk; different sample each time<br><br>Annual audits<br>Surprise audits   |   |  | Others (unannounced audit, AuditXpress, etc.)  |
| Equivalence   |   |   |  |  |
| <p>Since October 2009, the Global Red Meat Standard has been recognised by the Global Food Safety Initiative (GFSI), which drives equivalency between GRMS and other commercial standards recognised by GFSI.</p> <p>Accreditation Bodies are members of the Multilateral Recognition Arrangement (MLA) for the appropriate scope.</p> <p>Benchmarking procedures with Global Food Safety Initiative (GFSI) are performed on a yearly basis to re-benchmark the GFSI-recognised certification programmes.</p> | <p>BRC Global Standards for Food Safety</p> <p>IFS International Featured Standard agreed to a framework: in 2015, IFS and GLOBALG.A.P. for combined IFS and GLOBALG.A.P. Chain of Custody (CoC) audits</p> | None  | <p>ISO22000</p> <p>IAF Multilateral Recognition Arrangement (MLA) Member</p>                         | <p>ISO22000</p> <p>IFS Food Standard accepted by NVWA Dutch Food Authority</p> <p>Most of the Food Safety Modernization Act (FSMA) requirements are covered by IFS</p> |
| Traceability/Chain of Custody   |   |   |  |  |
| <p><u>Traceability:</u></p> <p>Certified companies should maintain a traceability system.</p>   | <p>The <b>GLOBALG.A.P. Chain of Custody Standard</b> is an essential certificate for all producers and retailers handling certified</p>   | <p>Traceability types:</p> <p>Segregated, during its preparation, processing, packaging, storage or</p> | <p><u>Traceability:</u></p> <p>ISO 22000 requires a traceability system that enables to identify</p> | <p><u>Traceability:</u></p> <p>Traceability shall be in place to identify the relationship</p>   |

| Table 45. Overview of Major VSS in meat  |  |  |   |   |
|--|--|--|---|---|
| GLOBAL RED MEAT STANDARD (GRMS)  | GLOBALG.A.P. LIVESTOCK   | SMIIC HALAL FOOD   | FSSC 22000  | INTERNATIONAL FEATURED STANDARDS (IFS)  |
| <p>All slaughter animals delivered shall be identified with a unique supplier number.</p> <p>All carcasses shall be identified by a slaughter number, which can be traced to a supplier number and the time of delivery.</p> <p><u>Chain of Custody (CoC)</u><br/>Not applicable</p> | <p>products. It ensures that any product bearing a GLOBALG.A.P. label or sold as a GLOBALG.A.P. certified product is sourced from GLOBALG.A.P. certified farms.</p>  | <p>transport. Halal products must be physically separated from any other food that does not meet the requirements specified in the standards and guides or any other materials that are described as non-halal by Islamic rules.</p> <p><u>Chain of Custody:</u><br/>Only in Turkey</p>  | <p>end product lots to their raw material batches.</p> <p>Traceability along the supply chain is required</p> | <p>between batches of final products and their labels. Traceability along the supply chain is required</p> <p>Segregation</p> <p><u>Chain of Custody:</u><br/>Audit not required</p>                                    |
| Premium Price  |  |  |   |   |
| No fixed premium   | No premium price   | No premium price   | No premium price  | No premium price  |
| Fees and costs   |  |  |   |   |
| <p>The fee for issuing audit reports and certificates is currently 250 €.</p> <p>Audit fee (certifying body): Depends on number of workers, volume of production, and other factors; ranges between US\$ 300 to 600/ day</p>   | <p>The costs for GLOBALG.A.P. certification consist of the following:</p> <p><b>Costs for implementing the standard:</b> Each farm is unique, so depending on their specific situation, some farms may need to implement new policies, processes, and installations to comply with the standard.</p> | <p>The cost depends on the number of audit hours required and could range between US\$ 40 to 70 per audit hour.</p> <p>Average range between US\$ 1000 a year for SMEs and US\$ 3000 for medium to large processors.</p> <p>Certifications of abattoirs, which are done four times a</p> | <p><u>Certification Audits:</u><br/>Costing based on company size</p>   | <p>Audit fees: US\$ 300 to 700 per day</p> <p>The IFS Food 6 prescribes rules for the duration of an IFS audit. The tool calculates the number of days based on the scope of the audit and the number of employees.</p> |

**Table 45. Overview of Major VSS in meat**







| GLOBAL RED MEAT STANDARD (GRMS)                         |         |      | GLOBALG.A.P. LIVESTOCK   |         |      | SMIIC HALAL FOOD  |        |      | FSSC 22000             |         |      | INTERNATIONAL FEATURED STANDARDS (IFS) |         |      |
|---|---------|------|--|---------|------|---|--------|------|------------------------|---------|------|--|---------|------|
|   |         |      | <p><b>GLOBALG.A.P. registration fee:</b> Charged by the GLOBALG.A.P. Secretariat via the certification bodies. This depends on annual volume of production (meat volume at point of slaughter)</p> <p><b>Service fees to the certification body:</b> Costs for the audits (time, travel costs) and services are negotiated directly between the producer and the certification body. Costs depends on individual price policies, duration of the audit, travel costs, time needed for preparation, and follow-up. Audit fees range from US\$ 300 to 600 per day.</p> |         |      | <p>year, cost approximately US\$ 2,000 to 3,000 per audit.</p> <p>The number of audit hours depends on the size of the company and the other certificates obtained by the company. For example, a company with food safety ISO 22000 or quality system certifications will not require more than three audit hours.</p> |        |      |                        |         |      |  |         |      |
|   |         |      |  |         |      |   |        |      |                        |         |      |  |         |      |
|   |         |      |  |         |      |   |        |      |                        |         |      |  |         |      |
| <b>Frequency of standard revision</b>                   |         |      |  |         |      |   |        |      |                        |         |      |  |         |      |
| Annual  |         |      | Every 3 years  |         |      | Ad hoc basis  |        |      | Annual<br>Ad hoc basis |         |      | Annual                                 |         |      |
| <b>Summary of Extent of coverage: Ranking and Score</b> |         |      |  |         |      |   |        |      |                        |         |      |  |         |      |
| Thematic Area   | Score   | Rank | Thematic Area  | Score   | Rank | Thematic Area   | Score  | Rank | Thematic Area          | Score   | Rank | Thematic Area                          | Score   | Rank |
| Overall   | 164/512 | 1    | Overall  | 144/512 | 3    | Overall   | 67/512 | 5    | Overall                | 151/512 | 2    | Overall                                | 105/512 | 4    |
| Environment   | 27/157  | 3    | Environment  | 41/157  | 1    | Environment   | 15/157 | 5    | Environment            | 22/157  | 4    | Environment                            | 35/157  | 2    |
| Social/Labour   | 7/139   | 4    | Social/Labour  | 49/139  | 1    | Social/Labour   | 2/139  | 5    | Social/Labour          | 8/139   | 3    | Social/Labour                          | 13/139  | 2    |
| Management  | 16/46   | 1    | Management   | 16/46   | 1    | Management  | 1/46   | 4    | Management             | 3/46    | 3    | Management                             | 7/46    | 2    |
| Quality   | 114/148 | 2    | Quality  | 34/148  | 5    | Quality   | 49/148 | 4    | Quality                | 115/148 | 1    | Quality                                | 58/148  | 3    |
| Ethics  | 0/22    | 4    | Ethics   | 4/22    | 1    | Ethics  | 0/22   | 4    | Ethics                 | 3/22    | 2    | Ethics                                 | 2/22    | 3    |

| <b>Table 45. Overview of Major VSS in meat</b>   |  |   |  |  |
|--|--|---|--|--|
| <b>GLOBAL RED MEAT STANDARD (GRMS)</b>   | <b>GLOBALG.A.P. LIVESTOCK</b>  | <b>SMIIC HALAL FOOD</b>   | <b>FSSC 22000</b>  | <b>INTERNATIONAL FEATURED STANDARDS (IFS)</b>  |
| It has the most number of coverage. Strength lies on management and quality but weak in social/labour and moderate in environment. | Has the most number of coverage in environment, social/labour, ethics, and management but weak in quality. | The weakest in overall coverage, environment, and social/labour. Weak also in terms of management, quality, and ethics. . | Has the second highest overall coverage and tops in terms of quality. Weak in environmental aspects and social/labour. | Ranks 4 <sup>th</sup> in terms of overall coverage. Ranks 2 <sup>nd</sup> in environmental, social/labour, and management. |



## MEAT (51 standards in ITC website)

**Table 46 . Major VSS in Meat: Comparison of Principles and Critical Control Points**

| REQUIREMENTS       | KEY STANDARDS   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|
|                    | GRMS  | IFOAM ORGANICS  | GLOBALG.A.P. LIVESTOCK  | SMIIC HALAL FOOD  | FSSC22000   | IFS   |
|                    |  |  |  |  |  |  |
| <b>OVERALL</b>     | <b>164/512</b>  | <b>158/512</b>  | <b>144/512</b>  | <b>67/512</b>   | <b>151/512</b>  | <b>105/512</b>  |
| <b>ENVIRONMENT</b> | <b>27/157</b>   | <b>92/157</b>   | <b>41/157</b>   | <b>15/157</b>   | <b>22/157</b>   | <b>35/157</b>   |
| SOIL               | 2/13  | 11/13   | 4/13  | 0/13  | 1/13  | 0/13  |
| FOREST             | 0/8   | 0/8   | 1/8   | 0/8   | 0/8   | 0/8   |
| INPUTS             | 7/33  | 22/33   | 6/33  | 5/33  | 7/33  | 7i/33   |
| BIODIVERSITY       | 7/33  | 19/33   | 6/33  | 0/33  | 0/33  | 0/33  |
| LIVESTOCK          | 4/21  | 20/20   | 13/20   | 7/20  | 4/20  | 19/20   |
| WASTE              | 5/21  | 10/21   | 6/21  | 3/21  | 6/21  | 5/21  |
| WATER              | 2/14  | 7/14  | 2/14  | 0/14  | 4/14  | 4/14  |
| ENERGY             | 0/7   | 3/7   | 3/7   | 0/7   | 0/7   | 0/7   |
| CLIMATE-CARBON     | 0/7   | 0/7   | 0/7   | 0/7   | 0/7   | 0/7   |
| <b>SOCIAL</b>      | <b>7/139</b>  | <b>24/139</b>   | <b>49/139</b>   | <b>2/139</b>  | <b>8/139</b>  | <b>13/139</b>   |

**Table 46 . Major VSS in Meat: Comparison of Principles and Critical Control Points**

| REQUIREMENTS   | KEY STANDARDS  |                |                        |                  |                |               |
|--|----------------|----------------|------------------------|------------------|----------------|---------------|
|  | GRMS           | IFOAM ORGANICS | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000      | IFS           |
| Human Rights And Local Communities                                     | 0/33           | 8/33           | 2/33                   | 0/33             | 1/33           | 2/33          |
| Labor Practices - Conditions Of Work and Social Protection             | 5/31           | 10/31          | 19/31                  | 1/31             | 5/31           | 6/31          |
| Labor Practices - Employment and Employment Relationships              | 1/47           | 23/47          | 28/47                  | 0/47             | 1/47           | 4/47          |
| Labor Practices - Human Development and Social Dialogue                | 1/28           | 4/28           | 10/28                  | 1/28             | 1/28           | 1/28          |
| <b>MANAGEMENT</b>  | <b>16/46</b>   | <b>18/46</b>   | <b>16/46</b>           | <b>1/46</b>      | <b>3/46</b>    | <b>7/46</b>   |
| Economic Viability   | 0/6            | 0/6            | 0/6                    | 0/6              | 0/6            | 1/6           |
| Sustainability Management  | 7/22           | 9/22           | 9/22                   | 1/22             | 0/22           | 5/22          |
| Supply Chain Responsibilities  | 3/20           | 3/20           | 1/20                   | 0/20             | 3/20           | 1/20          |
| <b>QUALITY</b>   | <b>114/148</b> | <b>24/148</b>  | <b>34/148</b>          | <b>49/148</b>    | <b>115/148</b> | <b>58/148</b> |
| Product / Service Quality Management                                   | 17/25          | 7/25           | 5/25                   | 18/25            | 15/25          | 11/25         |
| Non-Food Manufactured Products Technical Specifications                | 0/2            | 0/2            | 1/2                    | 0/2              | 2/2            | 1/2           |
| Food/Feed Management Systems   | 97/121         | 17/121         | 28/121                 | 31/121           | 99/121         | 46/121        |
| <b>ETHICS</b>  | <b>0/22</b>    | <b>0/22</b>    | <b>4/22</b>            | <b>0/22</b>      | <b>3/22</b>    | <b>2/22</b>   |
| Ethics: Anti-Corruption And Bribery Principles And Criteria            | 0/17           | 0/17           | 1/17                   | 0/17             | 2/17           | 0/17          |
| Ethics: Compliance To National, Regional And International Legislation | 0/5            | 0/5            | 3/5                    | 0/5              | 1/5            | 2/5           |

## C. SHRIMP AND PANGASIOUS

| Table 47 . Overview of major VSS in shrimp and pangasius  |            |  |  |   |   |
|---|------------|--|--|---|---|
| ASC Pangasius   | ASC Shrimp | GAA-BAP  | GLOBALG.A.P. Aquaculture   | BRC UK  | NATURLAND   |
| Product Coverage (among products covered in this study)   |            |  |  |   |   |
| Pangasius   | Shrimp     | Shrimp and Pangasius   | Pangasius  | Not specifically focused on shrimp and Pangasius<br>All food products                                     | Shrimp and Pangasius  |
| Owner of Certification System   |            |  |  |   |   |
| The standard is owned by the Aquaculture Stewardship Council (ASC), a fully independent, not for profit organization. It was founded by the Netherlands based Sustainable Trade Initiative (IDH) and WWF Netherlands in 2010 as an outcome of the WWF-led Aquaculture Dialogues. Main mandates of ASC are to manage the standards developed for each species and create future standards based on need and market demand. |            | <p>The Best Aquaculture Practices (BAP) was developed by the Global Aquaculture Alliance (GAA), an international non-governmental organization established in 1997.</p> <p>The BAP standards were developed with the support of the following 12 companies primarily supplying the U.S. market: H&amp;N Foods International, Chicken of the Sea Frozen Foods, H.E. Butt Grocery Co., Red Chamber Co., Rubicon Resources, Eastern Fish Co., Pacific Supreme Co., SeaPack Shrimp Co., Darden Restaurants, High Liner Foods USA Inc., Seajoy,</p> | <p>GLOBALG.A.P. began as EUREPGAP in 1997 as an initiative of the Euro-Retailer Produce Working Group (EUREP).</p> <p>It is owned by FoodPLUS GmbH.</p> <p><i>Please see GLOBALG.A.P. Livestock for more information on FoodPLUS GmbH.</i></p> | Owned by the British Retail Consortium, a trade association comprised of retailers in the United Kingdom. | <p>Owned by Naturland, which was founded in 1982. Naturland is both an organic farmers association with farmers as members, delegates and directors as well as a standard setting and certification body with its own label.</p> <p>It operates under the roof of the Naturland E.V., a non-profit organization offering a wide range of services in the organic, sustainable and ethical business arena.</p> |

| Table 47 . Overview of major VSS in shrimp and pangasius  |  |  |  |  |  |
|---|--|--|--|--|--|
| ASC Pangasius   | ASC Shrimp   | GAA-BAP  | GLOBALG.A.P. Aquaculture   | BRC UK   | NATURLAND  |
|   |  | and Scientific Associates, LLC.  |  |  |  |
| Description   |  |  |  |  |  |
| <p>The ASC Standard Setting Protocol is in compliance with the “ISEAL Code of Good Practice - Setting Social and Environmental Standards”.</p> <p>The following are the key guidelines:</p> <p><u>Biodiversity</u><br/>Farms must be located only in approved areas for aquaculture and they need to prove they do not impact endangered species.</p> <p>Fish escapes must be minimised and trapping devices are installed to recapture any fish that do escape.</p> <p>Limits are set for how much of this water can be allocated to the farm.</p> <p><u>Feeds</u></p> | <p>The following are the key guidelines:</p> <p><u>Biodiversity</u><br/>Farms must minimise impacts on their neighbouring ecosystem.</p> <p>A permanent coastal barrier must be in place between the farm and the coastline.</p> <p><u>Feeds</u><br/>Farms must minimise use of wild fish as an ingredient for feed.</p> <p>Farms must ensure full traceability back to a responsibly managed source, preferably certified, for wild fish, but also for palm oil and soy.</p> <p><u>Pollution</u><br/>Farms must measure water quality parameters at regular intervals and remain within set limits.</p> | <p>BAP is a comprehensive third-party aquaculture certification program, with achievable, science-based and continuously improved global performance standards addressing environmental responsibility, social responsibility, food safety, animal welfare and traceability. Standards are based on the following GAA guiding principles:</p> <p>Collaborate with governing bodies in the development and implementation of policies, regulations and procedures that achieve environmental, economic and social sustainability in aquaculture operations.</p> | <p>The following are the key sustainability areas covered:</p> <p>Food safety: in compliance with the GFSI requirements at farm level.</p> <p>Environment: includes Protected Areas criteria and a compulsory Environmental (Biodiversity inclusive) Impact Assessment and Management Plan.</p> <p>Traceability: from broodstock, seedlings and feed used at the aquaculture farming activities. Batch wise identification of stock and feed used.</p> <p>Workers Welfare: compulsory assessment on social practices; living</p> | <p>The standard is divided into 7 chapters:</p> <p>Senior Management Commitment and Continual Improvement</p> <p>The Food Safety Plan (HACCP)</p> <p>Food Safety and Quality Management System including requirements for product specifications, supplier approval, traceability, and the management of incidents and product recalls</p> <p>Site Standards including the layout and maintenance of the buildings and equipment, cleaning, pest control and waste management.</p> | <p>Organic standards of Naturland are more stringent than the statutory requirements of the EU eco regulation. The standards address feed composition, animal welfare, social and environmental issues in a more prescriptive manner than conventional aquaculture certification.</p> <p>Since 2016 a full inspection on Naturland social standards covering the following areas became mandatory:</p> <ul style="list-style-type: none"> <li>- Human rights</li> <li>- Freedom to accept or reject employment</li> <li>- Freedom of association</li> <li>- Equal treatment and opportunities</li> <li>- Children rights</li> <li>- Health and safety</li> </ul> |

| <b>Table 47 . Overview of major VSS in shrimp and pangasius</b>   |  |   |  |   |  |
|---|--|---|--|---|--|
| <b>ASC Pangasius</b>  | <b>ASC Shrimp</b>  | <b>GAA-BAP</b>  | <b>GLOBALG.A.P. Aquaculture</b>  | <b>BRC UK</b>   | <b>NATURLAND</b>   |
| <p>Fishmeal and fish oil products sourced for feed must be ISEAL certified.</p> <p>Farms must ensure full traceability back to a certified source for ingredients from wild fish.</p> <p><u>Pollution</u><br/>Farms must measure various water parameters (nitrogen, phosphorus, oxygen levels, etc.) and remain within set limits.</p> <p>Treatment systems for waste and sludge need to comply with strict requirements before discharging can occur.</p> <p><u>Diseases</u><br/>A health plan must be developed under supervision of an aquatic animal health specialist and implemented.</p> <p>The use of medicine before a disease is diagnosed (prophylactic use), and the use of medicines as growth promoter are prohibited.</p> | <p>Treatment systems for waste water need to comply with strict requirements. Discharge of sludge is not allowed.</p> <p><u>Diseases</u><br/>A health plan for the shrimp must be developed and implemented on the farm.</p> <p>The use of medicines before a disease is diagnosed (prophylactic use) is prohibited.</p> <p>Farms must be managed in such a way that shrimp survival rates are high.</p> <p><u>Antibiotics</u><br/>The use of medications, including antibiotics, is restricted.</p> <p><u>Social</u><br/>Farms must conform to the core principles of ILO, including prohibiting the use of child labour or any form of forced labour.</p> <p>Farms must ensure safe and equitable working environments where</p> | <p>Use only sites with characteristics that are compatible with long-term sustainable operation.</p> <p>Design and operate aquaculture facilities in a manner that conserves water resources.</p> <p>Design and operate aquaculture facilities in a way that minimizes the effects of effluent on water quality and ecological diversity.</p> <p>Strive for continuous improvements in feed and judicious use of therapeutic agents in accordance with appropriate regulations as needed on the basis of common sense and scientific judgement.</p> <p>Take all reasonable measures to prevent disease outbreaks.</p> | <p>conditions, workers health and occupational safety.</p> <p>Animal Welfare: specific to farmed fish species, including cohabitant species (e.g. cleaner/janitor fish).</p> | <p>Product Control including laboratories and product testing</p> <p>Process Control which covers the establishment and maintenance of safe process controls, weight/ volume control and equipment calibration.</p> <p>Personnel, which defines requirements for the training of staff and expectations on protective clothing and personnel hygiene.</p> | <p>- Employment conditions (contract, equal treatment, wages, in kind payment, working hours, social benefits, further education)</p> <p>The Naturland objective is to establish organic agriculture/aquaculture managed according to fair trade principles.</p> |

| Table 47 . Overview of major VSS in shrimp and pangasius  |   |   |  |  |  |
|---|---|---|--|--|--|
| ASC Pangasius   | ASC Shrimp  | GAA-BAP   | GLOBALG.A.P. Aquaculture   | BRC UK   | NATURLAND  |
| <u>Social</u><br>Farms must conform to the core principles of ILO, including prohibiting the use of child labour or any form of forced labour.<br><br>Farms must ensure safe and equitable working environments where employees earn a decent wage and have regulated working hours.<br><br>Farms must liaise directly with communities to solve conflicts and complaints and recruit workforce from the local community above migratory workers. | employees earn a decent wage and have regulated working hours.<br><br>Farms must liaise directly with communities to solve conflicts and complaints and recruit workforce from the local community above migratory workers. | Take all reasonable steps to ensure that introduction of exotic species are managed responsibly and in accordance with appropriate regulations.<br><br>Cooperate with other industry operators and participate in research and technological and educational activities with a view to improving the sustainability of aquaculture.<br><br>Strive to benefit local economies and communities. |  |  |  |
| Who can be certified  |   |   |  |  |  |
| Producers<br>Processors<br>Retailers  | Producers<br>Processors<br>Retailers  | Hatchery operators<br>Farms operators<br>Feed manufacturers<br>Processing plants  | Farm operators<br>Producer organizations<br>Traders<br>Companies | Any food processing or packing operation   | Farm operators<br>Processors   |
| Certification system and process  |   |   |  |  |  |
| <u>Steps</u><br>- Farm signs a contract with a conformity assessment body (CAB)<br>- CAB works with the farm to prepare for the audit.<br>The audit is publicly announced on the ASC website  |   | Steps<br>- Self-assessment through completion of application form<br>- Submission of application form   | Same as in GLOBALG.A.P Livestock                                 | <u>Steps</u><br>- Purchase of the Standard<br>- Selection of certification body<br>- Self-assessment | <u>Steps</u><br>- Exchange of information: Naturland provides interested producers and processors with |

| Table 47 . Overview of major VSS in shrimp and pangasius   |            |   |                          |  |   |
|--|------------|---|--------------------------|--|---|
| ASC Pangasius  | ASC Shrimp | GAA-BAP   | GLOBALG.A.P. Aquaculture | BRC UK   | NATURLAND   |
| <p>at least 30 days in advance to allow stakeholders to provide relevant input.</p> <ul style="list-style-type: none"> <li>- CAB assesses farm's technical and social compliance practice through visual assessments and interviews with management and staff.</li> <li>- CAB prepares a draft report, which may raise any major or minor non-conformities that the farm needs to improve upon. Both parties then agree on a time-bound improvement plan for each issue.</li> <li>- Draft report is published in ASC website for 10 days to gather feedback from stakeholders.</li> <li>- CAB takes certification decision.</li> <li>- CAB sends final certification report. Report is published in ASC website.</li> </ul> <p>A farm can only be certified once all requirements are complied with and objections to a report are addressed in writing by the CAB.</p> <p>ASC-certified entities shall only sell their product carrying the ASC Logo if a Logo Licence Agreement has been signed. Obtaining certification does not automatically guarantee the granting of a logo licence agreement. On behalf of the ASC, the Marine Stewardship Council (MSC) Licensing Team will issue the logo license.</p> |            | <ul style="list-style-type: none"> <li>- Select an approved certification body.</li> <li>- Site inspection and presentation of documents and records verifying compliance</li> <li>- After successful inspection, applicant pays a program fee based on annual seafood production.</li> </ul> <p><u>Enhanced Social Accountability (SA) and Employee Health and Safety (EHS) Audit:</u><br/>This audit offers a more in-depth review of the social accountability and environmental healthy and safety clauses in the BAP normal standard. This audit is available to all producers as a voluntary enhancement for marketplace endorsers, suppliers or producers seeking to differentiate their supply chain with added assurances.</p> |                          | <ul style="list-style-type: none"> <li>- On-site Audit</li> <li>- Draft Report</li> <li>- Corrective actions</li> <li>- Certification decision</li> <li>- Issue of report and certificate</li> <li>- Issue of report to customers</li> </ul> | <p>information about the basics of the work of Naturland as well as technical and formal aspects of certification. The interested farm/organisation is then requested to present itself, its work and its operation through accomplishment of a questionnaire.</p> <ul style="list-style-type: none"> <li>- Pre-evaluation visit: The purpose of the visit is to get an impression of the situation on site and to discuss the steps towards certification with all parties involved.</li> <li>- Contract: a producer contract between the farm/organisation and Naturland will be effectuated. Therein, the farm/company commits itself to comply with the standards and to regular inspections.</li> <li>- Inspection: Inspection of the farm/organisation by an independent and</li> </ul> |

| Table 47 . Overview of major VSS in shrimp and pangasius |            |         |                             |        |   |
|--|------------|---------|-----------------------------|--------|---|
| ASC Pangasius  | ASC Shrimp | GAA-BAP | GLOBALG.A.P.<br>Aquaculture | BRC UK | NATURLAND   |
|  |            |         |                             |        | <p>approved inspection body. Before the inspection is scheduled, the operator has to contact the inspection body and sign an inspection contract.</p> <ul style="list-style-type: none"> <li>- Certification: The inspection report, together with further data and information, is forwarded to the Naturland Certification Committee for decision.</li> <li>- Certificate and contract: Issuance of a certification letter and a certificate, confirming the operator's approval as Naturland certified farm/company. The farm/company also becomes a member of the Naturland Association for Organic Agriculture. From this moment on organic transaction certificates (OTCs) may be issued for individual shipments/ sales upon application by the</li> </ul> |



| Table 47 . Overview of major VSS in shrimp and pangasius  |            |   |   |   |   |
|---|------------|---|---|---|---|
| ASC Pangasius   | ASC Shrimp | GAA-BAP   | GLOBALG.A.P. Aquaculture  | BRC UK  | NATURLAND   |
|   |            |   |   |   | <p>operator. Such certificates contain specifications of the products, the producer and the buyer, guaranteeing third parties that this specific merchandise is a Naturland certified product.</p> <p>- Contract with the Naturland Zeichen GmbH: The legal basis for the use of the Naturland trade mark for labelling Naturland certified products is governed by a separate contract, with the Naturland Zeichen GmbH (Naturland trademark company).</p> |
| Certifying Body   |            |   |   |   |   |
| <p>Certification companies, also referred to as a Conformity Assessment Body (CAB), are independent of the ASC. They have to be accredited by the Accreditation Services International.</p> <p>All CABs shall conform to the requirements of ISO 17065 and all other ASC requirements relevant to the scope of accreditation applied for or held.</p> |            | Independent, third-party certification bodies (CBs) and auditors accredited by GAA. | Accredited Independent, third-party certification bodies (CBs) and auditors | Accredited Independent, third-party certification bodies (CBs) and auditors | <p>Accredited Independent inspection body/auditors for farm inspection.</p> <p>Certification decision is made by Naturland Certification Committee.</p>   |
| Validity of certification   |            |   |   |   |   |

| <b>Table 47 . Overview of major VSS in shrimp and pangasius</b>   |                   |                              |   |   |   |
|---|-------------------|------------------------------|---|---|---|
| <b>ASC Pangasius</b>  | <b>ASC Shrimp</b> | <b>GAA-BAP</b>               | <b>GLOBALG.A.P. Aquaculture</b>   | <b>BRC UK</b>   | <b>NATURLAND</b>  |
| 3 years with annual surveillance  |                   | 1 year                       | 1 year  | 1 year  | 1 year  |
| <b>Audit duration and frequency</b>   |                   |                              |   |   |   |
| <p>External audit: 1 to 2 weeks<br/>Audit per production site: 1 day</p> <p>On-site audit every year</p> <p>The minimum sampling size for sites shall be determined by using the ASC Group sample size calculator</p>   |                   | External audit: 1 to 2 weeks | <p>Audit duration varies greatly with location and producer structure.</p> <p>Annual audits</p> <p>Surprise audits</p>  | <p>The length of the audit will depend on the modules being included within the audit and size and complexity of the operations.</p> <p>External audit: 1 to 2 weeks</p> <p>On-site inspection: 1 to 3 days</p> | <p>External audit: 1 to 2 weeks</p> <p>Groups: As a minimum requirement 3% or at least 8 farmers must be inspected.</p> <p>Naturland regular inspections: once every year.</p> <p>Unannounced, risk-oriented spot checks are also made.</p> |
| <b>Equivalence</b>  |                   |                              |   |   |   |
| <p>FAO Technical Guidelines on Aquaculture Certification</p> <p>ISEAL Alliance - Associate member</p> <p>MSC Chain of Custody Certification</p> <p>The ASC-VietGAP benchmark has compared the Vietnamese aquaculture standard, VietGAP, and the ASC standards for shrimp, pangasius and tilapia, to allow farms that have achieved VietGAP certification to transition to ASC certification as efficiently as possible.</p> |                   |                              | <p>Has been successfully assessed against the Global Food Safety Initiative (GFSI) Benchmarking Requirements and achieved GFSI recognition for scope A2 farming of Fish.</p> <p>Has also been benchmarked against the Global Sustainable Seafood Initiative's</p> | <p>GFSI food safety programs: SQF, and FSSC 22000</p>   | IFOAM   |

| <b>Table 47 . Overview of major VSS in shrimp and pangasius</b>   |  |  |   |   |                  |
|---|--|--|---|---|------------------|
| <b>ASC Pangasius</b>  | <b>ASC Shrimp</b>  | <b>GAA-BAP</b>   | <b>GLOBALG.A.P. Aquaculture</b>   | <b>BRC UK</b>   | <b>NATURLAND</b> |
| Combined audits for ASC and GLOBALG.A.P. covering shrimp, salmon and Pangasius for farms seeking for more than one certification.   |  |  | Global Benchmark Tool Version 1 and are recognized by the GSSI Steering Board<br><br>ISEAL Alliance - Associate member          |   |                  |
| <b>Traceability/Chain of Custody</b>  |  |  |   |   |                  |
| Chain of custody model: identity preservation, segregation<br><br>Each company in the supply chain handling or selling an ASC certified product must have a valid Chain of Custody certificate<br><br>Chain of Custody certification ensures that companies selling certified seafood have identification, segregation and traceability processes and procedures in place.<br><br>ASC uses the Marine Stewardship Council's (MSC) Chain of Custody (CoC) Standard to verify the origin of seafood sold as ASC certified<br><br>ASC Chain of Custody (CoC) certification ensures that every distributor, processor, and retailer trading in ASC certified sustainable seafood has effective traceability systems in place. | Chain of custody model: identity preservation, segregation, and mass balance<br><br>No separate chain of custody standards | Chain of custody model: identity preservation, segregation, and mass balance<br><br>Has separate chain of custody certification. | Traceability is facilitated by the BRC Global Standard for Food Safety - Issue 8.<br><br>No separate chain of custody standards | Chain of custody model: identity preservation, segregation, mass balance, and book and claim<br><br>Naturland uses mass balance and book and claim for feed, harvest estimation and larvae.<br><br>No separate chain of custody standards |                  |
| <b>Premium Price</b>  |  |  |   |   |                  |
| No fixed premium for ASC certified Pangasius and Shrimp   | 0 – 10%  | No premium price   | No premium price  | No premium price  | No premium price |







| Table 47 . Overview of major VSS in shrimp and pangasius   |   |                                  |  |  |           |
|--|---|----------------------------------|--|--|-----------|
| ASC Pangasius  | ASC Shrimp  | GAA-BAP                          | GLOBALG.A.P. Aquaculture   | BRC UK   | NATURLAND |
| Fees and costs   |   |                                  |  |  |           |
| Yearly membership fees for all actors along the chain according to size and position in chain. Producer’s fee is smallest.<br><br>Audit fee (certifying body): US\$ 300 to 600/day | Farm operator has to pay:<br><ul style="list-style-type: none"><li>- US\$ 500 processing fee</li><li>- An inspection fee to certifiers (up to US\$ 5000) depending on the country in which the facility is located, and total annual seafood production volume</li></ul><br>Processing facilities:<br>Participation Fee, based on the amount of finished products exported in a calendar year:<br><ul style="list-style-type: none"><li>• &lt; 1 000 tonnes of finished products: Min. US\$ 2 000</li><li>• &gt;1 000 tonnes of finished products: US\$2/tonne (max. USD 8 000)</li></ul><br>Recertification costs: | Same as in GLOBALG.A.P Livestock | Audit fees: US\$ 400 to 800 per day depending on the scope, country of destination and volume of sales | Membership fee: Farmer Group a minimum 300 per group (1 euro per producer per year)<br><br>License fee, minimum per year 1% of the net sale (minimum of 500 euros)<br><br>Audit fees: USD 1500 – 3000 a year |           |

| Table 47 . Overview of major VSS in shrimp and pangasius   |         |      |   |         |      |  |         |      |   |         |      |   |        |      |  |         |      |
|--|---------|------|---|---------|------|--|---------|------|---|---------|------|---|--------|------|--|---------|------|
| ASC Pangasius  |         |      | ASC Shrimp  |         |      | GAA-BAP  |         |      | GLOBALG.A.P. Aquaculture  |         |      | BRC UK  |        |      | NATURLAND  |         |      |
|  |         |      |   |         |      | Annually between US\$ 1000 and 3000  |         |      |   |         |      |   |        |      |  |         |      |
|  |         |      |   |         |      |  |         |      |   |         |      |   |        |      |  |         |      |
|  |         |      |   |         |      |  |         |      |   |         |      |   |        |      |  |         |      |
|  |         |      |   |         |      |  |         |      |   |         |      |   |        |      |  |         |      |
| Frequency of standard revision   |         |      |   |         |      |  |         |      |   |         |      |   |        |      |  |         |      |
| Every 3 years  |         |      |   |         |      | Every 3 years<br>Ad hoc basis  |         |      | Every 3 years   |         |      | Every 3 years   |        |      | Every 3 years  |         |      |
| Summary of Extent of coverage: Ranking and Score   |         |      |   |         |      |  |         |      |   |         |      |   |        |      |  |         |      |
| Thematic Area  | Score   | Rank | Thematic Area   | Score   | Rank | Thematic Area  | Score   | Rank | Thematic Area   | Score   | Rank | Thematic Area   | Score  | Rank | Thematic Area  | Score   | Rank |
| Overall  | 148/449 | 5    | Overall   | 163/449 | 4    | Overall  | 210/449 | 1    | Overall   | 199/449 | 2    | Overall   | 61/449 | 6    | Overall  | 173/449 | 3    |
| Environment  | 59/160  | 5    | Environment   | 70/160  | 3    | Environment  | 67/160  | 4    | Environment   | 78/160  | 2    | Environment   | 21/160 | 6    | Environment  | 97/160  | 1    |
| Social/Labour  | 58/137  | 4    | Social/Labour   | 60/137  | 3    | Social/Labour  | 67/137  | 2    | Social/Labour   | 81/137  | 1    | Social/Labour   | 9/137  | 6    | Social/Labour  | 44/137  | 5    |
| Management   | 13/49   | 3    | Management  | 20/49   | 1    | Management   | 8/49    | 4    | Management  | 17/49   | 2    | Management  | 8/49   | 4    | Management   | 8/49    | 4    |
| Quality  | 13/86   | 3    | Quality   | 10/86   | 4    | Quality  | 63/86   | 1    | Quality   | 21/86   | 2    | Quality   | 21/86  | 2    | Quality  | 21/86   | 2    |
| Ethics   | 5/21    | 1    | Ethics  | 3/21    | 3    | Ethics   | 5/21    | 1    | Ethics  | 4/21    | 2    | Ethics  | 2/21   | 4    | Ethics   | 3/21    | 3    |
| Environmental and social coverage of ASC is relatively weak compared to other aquaculture specific standards. It ranked third in terms of coverage of quality. Among the aquaculture VSS, it has the highest coverage in ethics. |         |      | ASC shrimp is strong in management vis-à-vis other VSS. It ranks third in environmental and social/labour coverage. |         |      | Overall, BAP has the highest coverage. It ranks relatively low in environment but strong in quality/food safety and social/labour. BAP has the highest coverage on conditions of work and social protection. It also ranks high in |         |      | GlobalGAP ranks second in overall coverage. It has the highest social/labour coverage and ranks second in environment and food safety/quality. It has adopted a management based approach on issues such as predator control, |         |      | BRC is focused primarily on food safety and quality. It has weak coverage on all other aspects. |        |      | Naturland's strength is on environment and quality. It is relatively weak in social/labour although continuous updating is being made on social/labour coverage. |         |      |

| <b>Table 47 . Overview of major VSS in shrimp and pangasius</b>  |                   |   |   |               |                  |
|--|-------------------|---|---|---------------|------------------|
| <b>ASC Pangasius</b>   | <b>ASC Shrimp</b> | <b>GAA-BAP</b>  | <b>GLOBALG.A.P.<br/>Aquaculture</b>   | <b>BRC UK</b> | <b>NATURLAND</b> |
| <p>ASC is the most thorough in issues related to feed use and sourcing, It is the only scheme that also has compulsory requirements on sustainable sourcing of terrestrial feed ingredients and as a unique requirement: record-keeping and disclosure of genetically modified feed ingredients.</p> <p>ASC is strong in employment and employment relationships.</p> <p>ASC does not regulate food safety and hygiene. This has been explicitly left outside the scope of the organization as other schemes have already handled the issue.</p> |                   | <p>employment and employment relationships.</p> <p>BAP is less systematic as it requires environmental impact assessment (FAO criterion) only if it is required by national legislation. BAP does not explicitly ban or regulate the use of genetic modified organisms.</p> | <p>mangrove restoration, for which the other standards have descriptive requirements.</p> <p>The GLOBALGAP appears to be the better aquaculture specific VSS.</p> |               |                  |

## SHRIMP AND PANGASIUS, AQUACULTURE (53 standards registered in ITC)

**Table 48 . Major VSS in Shrimp and Pangasius (Aquaculture): Comparison of Principles and Critical Control Points**

| REQUIREMENTS       | KEY STANDARDS   |  |   |   |   |   |
|--------------------|---|--|---|---|---|---|
|                    | ASC PANGASIUS   | ASC SHRIMP   | GAA-BAP   | GLOBALG.A.P. AQUACULTURE  | BRC UK  | NATURLAND   |
|                    |  |  |  |  |  |  |
| <b>OVERALL</b>     | <b>148/449</b>  | <b>163/449</b>   | <b>210/449</b>  | <b>199/449</b>  | <b>61/449</b>   | <b>173/449</b>  |
| <b>ENVIRONMENT</b> | <b>59/160</b>   | <b>70/160</b>  | <b>67/160</b>   | <b>78/160</b>   | <b>21/160</b>   | <b>97/160</b>   |
| SOIL               | 0/8   | 5/8  | 5/8   | 4/8   | 0/8   | 3/13  |
| FOREST             | 0/9   | 4/9  | 4/9   | 6/9   | 0/9   | 5/9   |
| INPUTS             | 10/32   | 13/32  | 13/32   | 13/32   | 6/32  | 21/32   |
| BIODIVERSITY       | 16/34   | 16/34  | 16/34   | 18/34   | 0/34  | 19/34   |
| LIVESTOCK          | 12/26   | 11/26  | 11/26   | 13/26   | 0/26  | 20/28   |
| WASTE              | 9/22  | 12/22  | 13/22   | 13/22   | 9/22  | 13/22   |
| WATER              | 11/14   | 9/14   | 10/14   | 8/14  | 5/14  | 12/14   |
| ENERGY             | 1/7   | 1/7  | 0/7   | 3/7   | 1/7   | 4/7   |
| CLIMATE-CARBON     | 0/7   | 0/7  | 0/7   | 0/7   | 0/7   | 0/7   |

**Table 48 . Major VSS in Shrimp and Pangasius (Aquaculture): Comparison of Principles and Critical Control Points**

| REQUIREMENTS  | KEY STANDARDS |               |               |                          |              |               |
|---|---------------|---------------|---------------|--------------------------|--------------|---------------|
|   | ASC PANGASIUS | ASC SHRIMP    | GAA-BAP       | GLOBALG.A.P. AQUACULTURE | BRC UK       | NATURLAND     |
| <b>SOCIAL</b>   | <b>58/137</b> | <b>60/137</b> | <b>67/137</b> | <b>81/137</b>            | <b>9/137</b> | <b>44/137</b> |
| Human Rights And Local Communities                          | 13/34         | 20/34         | 10/34         | 27/34                    | 7/34         | 8/34          |
| Labor Practices - Conditions Of Work and Social Protection  | 9/30          | 14/30         | 22/30         | 20/30                    | 6/30         | 10/30         |
| Labor Practices - Employment and Employment Relationships   | 27/48         | 27/48         | 23/48         | 22/48                    | 1/48         | 19/48         |
| Labor Practices - Human Development and Social Dialogue     | 9/25          | 13/25         | 2/25          | 12/25                    | 2/25         | 7/25          |
| <b>MANAGEMENT</b>   | <b>13/49</b>  | <b>20/49</b>  | <b>8/49</b>   | <b>17/49</b>             | <b>8/49</b>  | <b>8/49</b>   |
| Economic Viability  | 0/6           | 0/6           | 0/6           | 3/6                      | 1/6          | 2/6           |
| Sustainability Management                                   | 10/22         | 14/22         | 7/22          | 12/22                    | 5/22         | 2/22          |
| Supply Chain Responsibilities                               | 3/21          | 6/21          | 1/21          | 2/21                     | 3/21         | 6/21          |
| <b>QUALITY</b>  | <b>13/86</b>  | <b>10/86</b>  | <b>63/86</b>  | <b>21/86</b>             | <b>21/86</b> | <b>21/86</b>  |
| Product / Service Quality Management                        | 8/25          | 6/25          | 14/25         | 8/25                     | 20/25        | 10/25         |
| Non-Food Manufactured Products Technical Specifications     | 0/1           | 0/1           | 1/1           | 0/1                      | 1/1          | 0/1           |
| Food/Feed Management Systems                                | 5/60          | 4/60          | 48/60         | 29/60                    | 53/60        | 11/60         |
| <b>ETHICS</b>   | <b>5/21</b>   | <b>3/21</b>   | <b>5/21</b>   | <b>4/21</b>              | <b>2/21</b>  | <b>3/21</b>   |
| Ethics: Anti-Corruption And Bribery Principles And Criteria | 1/16          | 0/16          | 1/16          | 1/16                     | 1/16         | 0/16          |



**Table 48 . Major VSS in Shrimp and Pangasius (Aquaculture): Comparison of Principles and Critical Control Points**

| REQUIREMENTS   | KEY STANDARDS |            |         |                          |        |           |
|--|---------------|------------|---------|--------------------------|--------|-----------|
|  | ASC PANGASIUS | ASC SHRIMP | GAA-BAP | GLOBALG.A.P. AQUACULTURE | BRC UK | NATURLAND |
| Ethics: Compliance To National, Regional And International Legislation | 4/5           | 3/5        | 4/5     | 3/5                      | 1/5    | 3/5       |

## D. TUNA

| Table 49. Overview of Major VSS in tuna   |  |   |   |
|---|--|---|---|
| BSCI  | MSC  | FRIEND OF THE SEA<br>FOS  | NATURELAND<br>WILDFISH  |
| Product Coverage (among products covered in this study)   |  |   |   |
| All kind of Food Products   | Wild-capture fisheries   | Fisheries and Aquaculture   | All kind of wildfish  |
| Owner of certification system   |  |   |   |
| <p>The Foreign Trade Association (FTA) was created in Brussels by a handful of companies, in order to represent the foreign trade interests of European retailers, brands and importers to European and international institutions.</p> <p>In 2003, FTA created the Business Social Compliance Initiative, now amfori BSCI, owner of the Code of Conduct BSCI</p> <p>Database: January 2020</p> | <p>The MSC is an international, non-profit organization established in 1997</p> <p>Database: May 2017</p>  | <p>Established in 2008, Friend of the Sea was founded by Paolo Bray, Director of International Programs – Dolphin-Safe Project / Earth Island Institute.</p> <p>The Dolphin-Safe Project saved millions of dolphins from death in tuna fishing nets and started the sustainable seafood movement. .</p> | <p>Same as Naturland Aquaculture</p>  |
| Description   |  |   |   |
| <p>The amfori BSCI platform is a common database of confidential information collected and uploaded by amfori BSCI Participants, their business partners (in particular producers), and auditing companies.</p>   | <p>The MSC mission is to use our ecolabel and fishery certification program to contribute to the health of the world's oceans by recognising and rewarding sustainable fishing practices, influencing the choices people make when buying seafood, and working</p> | <p>Friend of the Sea is currently a project of the World Sustainability Organization, an international trademark registered with humanitarian and environmental conservation mission. Friend of the Sea has become the leading certification standard for products and</p>                              | <p><u>Sustainable Capture Fishery:</u><br/>The focus of the Naturland standards on sustainable fishery is on the careful use of fish stocks and of the environmental system as a whole, abstention from critical fishing methods harmful to the environment, adherence to</p> |

|  |   |   |   |
|--|---|---|---|
| <p><b>amfori BSCI</b> has developed their Code of Conduct improving social performance in global supply chains through 11 principles:</p> <p>The Rights of Freedom of Association and Collective Bargaining<br/> Fair remuneration<br/> Occupational health and safety<br/> Special protection for young workers<br/> No bonded labour<br/> Ethical business behaviour<br/> No discrimination<br/> Decent working hours<br/> No child labour<br/> No precarious employment<br/> Protection of the environment</p> <p>amfori BSCI Approach<br/> <b>Code Observance:</b> Enterprise is obliged to protect workers' rights as mandated by the law and the amfori BSCI Code.<br/> <b>Workers' Involvement and Protection:</b> Enterprise has to keep workers informed about their rights and responsibilities<br/> <b>Supply Chain Management and Cascade Effect:</b> Enterprise has to use the amfori BSCI Principles to influence other business partners.</p> | <p>with our partners to transform the seafood market to a sustainable basis</p> | <p>services which respects and protects the marine environment. The certification awards sustainable practices in Fisheries, Aquaculture, Fishmeal and Omega 3 Fish Oil. Friend of the Sea also promotes pilot projects related to restaurants, sustainable shipping, whale and dolphin-watching, aquaria, ornamental fish, UV creams and others.</p> <p>Friend of the sea follows the FAO guidelines for the eco-labeling of fish and fishery products from marine capture fisheries. In particular, friend of the sea criteria fulfil also art. 30 of the guidelines, allowing certification only of products from not overexploited stocks. Friend of the sea scheme can certify, with the same seal of approval, products both farmed and wild-caught.</p> <p>Friend of the Sea Criteria for Sustainable Fisheries require: non-overexploited target stock according to FAO, Regional Fishery Bodies and National Marine Authorities; no relevant impact on the seabed; selective fishing method (max 8% discards); no bycaught species</p> | <p>social standards applicable to fishermen and -women and to those working in the fish processing industry, organic reprocessing methods, and transparent recognition procedures open to public scrutiny and applicable to every link in the value chain.</p> <p>These standards are obligatory for all producers that have concluded a producer contract with Naturland e. V. (registered association). If single regulations or parts of these standards should not be applicable in certain geographic areas, the Naturland standards committee has to draft an amendment or addition to the standards which has to be passed by the assembly of delegates</p> <p>The holistic claim of Naturland standards also includes the social treatment of the people who work and live on the fishery projects.</p> <p>The project performs its fishing activities in such a way that integrity of the ecosystem is</p> |
|--|---|---|---|

|  |   |   |  |
|--|---|---|--|
| <b>Grievance Mechanism:</b> Enterprise provides a system to collect complaints and suggestions from employees.   |   | included in the IUCN Redlist of endangered species; compliance with legal requirements (incl. TACs, no IUU, no FOC, mesh size, min size, MPA, etc); energy balance and yearly fuel efficiency improvement; waste management; social accountability.   | maintained longterm, concerning both the stocks of the economically relevant species as well as the other components of the ecosystem.   |
| <b>Who can be certified</b>  |   |   |  |
| BSCI members<br><br>Producers<br>Manufacturers<br>Retailers  | Producers<br>Suppliers<br>Retailers   | Producers<br>Suppliers  | Producers<br>Processors<br>traders   |
| <b>Certification system and process</b>  |   |   |  |
| <p><b>Monitoring Partner (MP):</b><br/>Amorfi BSCI Audit Quality Programme sets, maintains and raises the quality standards for monitoring partners to conduct amfori BSCI audits.</p> <p>Each component of the programme is consolidated on a reporting tool, with the purpose of having a comprehensive and holistic risk analysis of the monitoring partner at each level of its operation and an Audit Reliability Score.</p> <p>KPMG is amfori's audit quality partner.</p> <p><u>Assurance Partner (AP):</u></p> | <p>The certification process: The Marine Stewardship Council (MSC) and the Aquaculture Stewardship Council (ASC) have partnered to share the Chain of Custody Standard. This means you can have one certification audit that covers both MSC and ASC products.</p> <p>There are five steps to Chain of Custody certification:</p> <ul style="list-style-type: none"> <li>- Choose a certification body</li> <li>- Prepare for the audit</li> <li>- Complete the audit</li> <li>- Receive certification</li> <li>- After the Audit-Non-conformities</li> <li>- Use the MSC or ASC label</li> </ul> | <p>Yearly audits are carried out onsite by independent international certification bodies in consultation with stakeholders, against the strict Friend of the Sea environmental sustainability and social accountability criteria.</p> <p>solely to certification. FOS is a Member Associate of FAO/ INFOFISH. Its criteria follow the UN FAO - Guidelines for the Eco-labelling of Fish and Fishery Products from Marine Capture Fisheries. In particular, only products from stocks which are not overexploited can</p> | <p>Exchange of information<br/>Pre-evaluation visit<br/>Contract<br/>Inspection<br/>Certification<br/>Certificate and contract<br/>Contract with the Naturland Zeichen GmbH<br/>Group Certification: Depends on the product. Most important points of inspection: production, documentation, accounting and organisation structure.</p> <p>Sample Size: 10% serves as a general guideline for the amount of external inspections, but it may</p> |

|   |   |   |  |
|---|---|---|--|
| <p>The programme is managed by the Audit Integrity Assurance Partner which is selected and commissioned by amfori, and overseen by the relevant members of the amfori main office</p> <p>The evaluation of the monitoring partner's performance is done through the Audit Quality Programme. The AP manages and implements the amfori BSCI Audit Quality Programme and reports to the amfori main office.</p> <p>The AP is selected through a restricted tender process following the principles of: Objectivity; Transparency, and; Impartiality.</p> <p>AP selection is based on their scope of activity, geographical coverage and entity type.</p> <p><u>Certification Process</u><br/> On-site audit<br/> Preparation of improvement plan<br/> Audit report evaluation<br/> Certification decision</p> <p><u>Certification Maintenance</u><br/> Continuous improvement<br/> Annual updates – end of year 1 and 2<br/> Application for renewal of certificate</p> | <p>Sample size for groups: Different sample sizes are indicated for high risk, medium risk, low risk and very low risk fisheries. Tables with sample sizes can be viewed in the MSC Chain of Custody Certification Requirements v2.0 Feb 2015, p. 57 - 60</p> | <p>be certified.</p> <p>Audit Process:<br/> Preliminary evaluation<br/> Download, fill and return of Preliminary Form (PIF)<br/> Audit authorization and submission of Audit and Licensing Agreement (ALA)<br/> On-site Audit: at the vessels supplying raw material and through the production and distribution chain sites for traceability (Wild-catch Fisheries)<br/> Draft report<br/> Approval of certification<br/> Maintenance Audit: The Certification Body inspect once every three years</p> <p>Sample size: The Square Root, for each group of companies with property and/or environmental and social management systems and for each production phase (for example: semi-finished product, finished product, product distributed to consumers).</p> | <p>be lower or higher, depending on the findings of the inspector when evaluating the ICS.</p> |
|---|---|---|--|

|   |  |   |                                      |
|---|--|---|--------------------------------------|
| Certification is valid for three years  |  |   |                                      |
| <b>Certifying body</b>  |  |   |                                      |
| <p>Amorfi BSCI qualifies and accredits what they call “monitoring partners”. Any existing or or candidate monitoring partner should met BSCI Monitoring Partner Accreditation Requirements in full.</p> <p>The monitoring partner can decide which approval route to pursue based on its on-going/current accreditation status:</p> <ul style="list-style-type: none"> <li>• SAAS Accreditation</li> <li>• ISO 17021</li> <li>• ISO 17020</li> <li>• None</li> </ul> <p>The application cost is €2000. This includes the initial processing of the application of the interested organisation.</p> <p>After having successfully completed each stage of the approval process, the monitoring partner can solicit its approval to amfori. The approval will be granted or refused by amfori or their delegate.</p> | <p>The MSC certification and ecolabelling program is a third-party program. Independent certification bodies carry out assessments of fisheries and businesses against our standards for sustainable fishing and seafood traceability. This ensures our program is robust, credible and meets best practice guidelines for standard-setting organisations as set out by ISEAL and the FAO.</p> <p>The Chain of Custody certification process, from application to the awarding of a certificate, is managed by an independent and accredited certification body.</p> <p>The certification body will appoint an auditor who will become your most frequent contact throughout the certification process.</p> <p>All certification bodies are approved by an independent assurance body.</p> | <p>Only certifying bodies that have been approved by Rainforest Alliance and compliant with ISO 17065 and/or ISO 17021.</p> | <p>Same as Naturland Aquaculture</p> |
| 3 years   | 1 year   | 3 years   | 1 year                               |
| <b>Audit duration and frequency</b>   |  |   |                                      |

|   |   |  |                                     |
|---|---|--|-------------------------------------|
| <p>External audit: 1 to 2 weeks</p> <p>Full audit: Number of workers<br/>Follow-up audit: Number of workers and number of Performance Areas with findings in the previous audit.</p> <p>For one-site audits, the audit scope usually corresponds to one legal entity at one location.<br/>For multi-tier audits, the audit scope includes the main auditee and its sampled farms, which may belong or not to the same legal entity.</p> <p>For multi-tier audits: never less than two farms, and no more than ten farms</p> | <p>The average time taken for a full assessment is 12 months and the minimum is 8 months. The length depends to some extent on your preparation as well as the nature and complexity of your fishery</p> <p>The audit process includes site visits, stakeholder consultation and information collection in order to enable the CAB to make the certification decision. After this a reporting process will be completed and the fishery will be certified. The CAB shall perform a risk analysis of certificate holders after each certification, surveillance and re-certification audit to determine the surveillance level</p> <p>Surveillance Audits: every 2 years</p> | <p>External audit: 1 to 2 weeks</p> <p>Sampling for farmer group certification: square root of number of producers in group, but up to 1.4 times that for high risk, or half that for surveillance audits of “high-performing clients”</p> | <p>External audit: 1 to 2 weeks</p> |
| <b>Equivalence</b>  |   |  |                                     |
| No  | ASC shared Chain of Custody Certification Program   | No   | No                                  |
| <b>Traceability/Chain of Custody</b>  |   |  |                                     |
| Traceability – Chain of Custody: No   | Chain of Custody: Segregation, auditors shall establish that appropriate measures are taken by the client to segregate, identify and prevent mixing between: Certified and  | Traceability types: Segregated<br>The organization ensures the presence of a specific system of traceability which assures that the product audited respects all the requirements  | Same as Naturland Aquaculture       |





|  |   |  |  |
|--|---|--|--|
|  | <p>non-certified seafood; Where relevant, between seafood certified to other recognised schemes sharing MSC CoC.</p> <p>If subcontractors are used, auditors shall verify that appropriate systems are in place to ensure identification and traceability of certified products at point of dispatch and receipt.</p> <p>Chain of Custody Audit required: MSC Chain of Custody Certification Requirements v2.0 Feb 2015</p> | <p>of this standard and that there is no possibility that mixing with other non-certified products occurs.</p> <p>Traceability - CoC along the supply chain</p>  |  |
| <b>Premium Price</b>   |   |  |  |
| No premium price   | No premium price  | No minimum or guaranteed prices, although many producers receive a premium. Prices are determined in a negotiation process between the buyer and seller.   | No premium price for wildfish  |
| <b>Fees and costs</b>  |   |  |  |
| <p>BSCI Participants pay an annual fee, which depends on the annual turnover of their company (from 3.000 Euros to 30.000 Euros). The membership fee is not related to audit costs.</p> <p>amfori BSCI determines the minimum length of an amfori BSCI audit, but every auditing company defines its own service rate.</p> | <p>There are 2 potential costs involved when you use the MSC Annual fee and Royalties. Which of these costs you pay when you use the MSC ecolabel depends on your organisation and how you use the MSC ecolabel. Certified fisheries, non-commercial organisations without foodservice operations, the media and accredited educational institutions do not incur</p>   | <p>The audit cost depends on its complexity. A quotation is issued after all data is collected.</p> <p>The average cost recorded is approximately 3,000 Euros for aquaculture and 5,000 Euros for fishery.</p> | <p>The membership fee for farms is raised per hectare (2 EURO/ hectares), for small farmer's organizations it is raised per farmer (1 EURO/ farmer). In addition, the Naturland members pay an annual product specific fee based on the turnover accomplished through the net sales of all certified products.</p> |



|                                       |  |              |        |
|---------------------------------------|--|--------------|--------|
|                                       | <p>any fees or royalties to use the MSC ecolabel.</p> <p>The cost of fishery assessments varies and depends on the complexity of the fishery, the availability of information and the level of stakeholder involvement. Anecdotal information indicates that the current cost of certification can vary between \$15,000 (USD) and \$120,000 (USD), perhaps more for complex assessments with multiple units of certification.</p> |              |        |
| <b>Frequency of standard revision</b> |  |              |        |
| Ad hoc basis                          | Every 3 and 5 years  | Ad hoc basis | Annual |

## TUNA / WILD CAPTURE (41 standards registered in ITC)

Table 50 . Major VSS in Tuna: Comparison of Principles and Critical Control Points

| REQUIREMENTS                       | KEY STANDARDS  |   |   |   |
|------------------------------------|--|---|---|---|
|                                    | BSCI   | MSC   | FRIEND OF THE SEA FOS   | NATURLAND WILDFISH  |
|                                    |  |  |  |  |
| <b>OVERALL</b>                     | <b>175/407</b>   | <b>143/407</b>  | <b>125/407</b>  | <b>164/407</b>  |
| <b>ENVIRONMENT</b>                 | <b>59/167</b>  | <b>70/167</b>   | <b>67/167</b>   | <b>78/167</b>   |
| FOREST                             | 0/1  | 0/1   | 0/1   | 1/1   |
| INPUTS                             | 5/13   | 0/13  | 2/13  | 11/13   |
| BIODIVERSITY                       | 1/23   | 18/23   | 10/23   | 14/23   |
| LIVESTOCK                          | 0/2  | 0/2   | 2/2   | 0/2   |
| WASTE                              | 4/12   | 0/12  | 5/12  | 7/12  |
| WATER                              | 4/4  | 3/4   | 2/4   | 4/4   |
| ENERGY                             | 0/4  | 0/4   | 1/4   | 4/4   |
| CLIMATE-CARBON                     | 0/2  | 0/2   | 2/2   | 0/2   |
| <b>SOCIAL</b>                      | <b>99/112</b>  | <b>60/112</b>   | <b>51/112</b>   | <b>43/112</b>   |
| Human Rights And Local Communities | 5/14   | 4/14  | 8/14  | 7/14  |

**Table 50 . Major VSS in Tuna: Comparison of Principles and Critical Control Points**

| REQUIREMENTS   | KEY STANDARDS |             |                          |                       |
|--|---------------|-------------|--------------------------|-----------------------|
|  | BSCI          | MSC         | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Labor Practices - Conditions Of Work and Social Protection             | 24/32         | 0/32        | 12/32                    | 9/32                  |
| Labor Practices - Employment and Employment Relationships              | 47/48         | 2/48        | 22/48                    | 19/48                 |
| Labor Practices - Human Development and Social Dialogue                | 13/18         | 0/18        | 9/18                     | 8/18                  |
| <b>MANAGEMENT</b>  | <b>9/29</b>   | <b>9/29</b> | <b>4/29</b>              | <b>14/29</b>          |
| Economic Viability   | 0/2           | 0/2         | 1/2                      | 2/2                   |
| Sustainability Management  | 7/14          | 7/14        | 3/14                     | 7/14                  |
| Supply Chain Responsibilities  | 2/13          | 2/13        | 0/13                     | 5/13                  |
| <b>QUALITY</b>   | <b>0/78</b>   | <b>1/78</b> | <b>0/78</b>              | <b>26/78</b>          |
| Product / Service Quality Management                                   | 0/21          | 1/21        | 0/21                     | 11/21                 |
| Food/Feed Management Systems   | 0/57          | 0/57        | 0/57                     | 15/57                 |
| <b>ETHICS</b>  | <b>8/20</b>   | <b>3/21</b> | <b>3/21</b>              | <b>3/21</b>           |
| Ethics: Anti-Corruption nd Bribery Principles And Criteria             | 6/16          | 0/16        | 0/16                     | 0/16                  |
| Ethics: Compliance To National, Regional And International Legislation | 2/4           | 3/4         | 3/4                      | 3/4                   |

## 6 COSTS AND BENEFITS OF VSS AND MANDATORY REQUIREMENTS

This section examines mandatory regulations and VSS from the point of view of their ability to promote safer, fairer, and more responsible supply chains. It also looks at the costs and constraints faced by industry actors in complying with regulations and VSS.

The information and discussions presented here are excerpts from available studies rather than primary data gathering. Adoption of VSS in Vietnam appears to be more robust than in the Philippines especially in the subsectors covered in this study. There appears to be no in-depth studies yet relating to the effects of VSS to Philippine exporters.

The following are the key insights that can be gleaned from the various studies:

### Mandatory Requirements

a) Mandatory requirements become trade obstacles and pose additional costs to exporters due to:

- Complex and cumbersome requirements
- Procedural obstacles

The degree of negative impact of mandatory requirements depends on the severity and complexity of the technical and/or procedural requirements. A key challenge, therefore, is how to incorporate efficiency and facilitative measures in the implementation and administration of mandatory requirements.

- b) Compliance to mandatory requirements helps ensure that products meet the basic requirements of destination countries especially in terms of food safety. It reduces risk of rejection.
- c) Mutual recognition agreements among partner countries, greater transparency, and adherence to international standards/higher regulatory convergence between and among trading partners can help reduce compliance costs and enhance positive impact of mandatory costs on promoting trade growth.

### Voluntary Sustainability Standards

- a) The net benefits of VSS depend to a significant extent on the product concerned, end market, characteristics and structure of the supply chain, and position of the enterprise within that structure including its scale and productivity. It also depends on the standards market attributes level of demand in target markets. Income from certified products can also be limited by the extent to which markets absorb the total volume of certified products
- b) Economic benefits are more or less assured in VSS with in-built premium guarantees such as the Fairtrade. In many cases, certification assures continued access to certification-centric market segments (linked to reputational issues and advocacy group pressure) with no price premium

guarantee. If sizeable number of buyers adopt VSS, this makes VSS a de facto requirement for accessing a market.

- c) Majority of the studies indicated that adoption of VSS contributed to improved environmental and food safety performance. Many of the studies reviewed by the research team indicated that certified farmers hired more workers than non-certified farms. Impact of VSS on social and work conditions though was less studied. It was also not clear whether training on workers safety and health and decent work was conducted especially for VSS that included labour and social conditions.
- d) Compliance with VSS entails two types of costs: (i) certification and audit fees; and (ii) implementation costs. Among smallholders and small enterprises covered in the studies reviewed, initial certification and audit fees are generally subsidized by buyers and development programs. Renewal costs, however, are generally shouldered by the farmers themselves. Implementation costs include investments for upgrading facilities, technologies, and practices to conform to standards. In many cases, training was provided by development programs but implementation costs to effect the changes were borne by farmers/enterprises. The amount of implementation costs depends on the degree of change that is required. Scale of operations, level of productivity, and alignment of existing facilities and technologies to standards influence implementation costs. If change required is complex and will require high costs, it will dilute whatever benefits that may accrue from certification.

Costs associated with changing production techniques upgrading facilities to obtain certification can sometimes be higher than the certification and audit costs. Although not explicitly discussed in the studies, upgrading of technologies and facilities can also contribute to improving work conditions if purposively designed to do so.

- e) Group certification seeks to facilitate the inclusion of smallholders. Organizational development though also requires resources and, oftentimes, external assistance. Net benefits from sustainability certification also depend on level of organizational development of groups.
- f) A multiplicity of VSS may also lead to confusion among consumers, undermining the credibility of VSS. It also increases operations costs of enterprises as VSS certifications call for renewal every three to five years. Investment costs to conform to various VSS may not be so high as standards usually have similar features and requirements.
- g) VSS as a differentiation strategy appears to hold true only during the early adoption stage. As supply of VSS certified products increases, differentiation advantage wanes.

## **A. COFFEE**

1. Toward Sustainability or Efficiency: The Case of Smallholder Coffee Farmers in Vietnam  
Authors: Nguyen Hung Anh, Wolfgang Bokelmann, Do Thi Nga, and Nguyen Van Minh  
Date of publication: 4 July 2019  
VSS: UTZ, Rainforest Alliance, 4C, Fairtrade  
Area: Dak Lak province, Vietnam  
Sample: 316 farmers (183 certified; 133 –non-certified); data based on 2017 crop year

| <b>Table 51 . Profile of Respondents: Certified and Non-Certified Farmers</b> |           |               |          |
|---|-----------|---------------|----------|
| Factors of Production   | Mean      |               | T- Ratio |
|   | Certified | Non-Certified |          |
| Yield/ha  | 3215.77   | 2933.25       | 2.9206*  |
| NPK fertilizer expenses/ha<br>(in million VND)                                | 14,612.24 | 16,632.26     | -1.6722* |
| Organic fertilizer expenses/ha<br>(in million VND)                            | 6510.76   | 3299.20       | 12.1424* |
| Manure expenses/ha<br>(in million VND)  | 5762.84   | 3963.07       | 6.0717*  |
| Pesticide expenses/ha<br>(in million VND)                                     | 1788.13   | 1282.48       | 3.5507*  |
| Water expenses/ha<br>(in million VND)   | 3946.67   | 4556.26       | -1.5180  |
| Hired labour expenses/ha<br>(in million VND)                                  | 10135.25  | 6612.93       | 5.6091*  |
| Family labour expenses/ha<br>(in million VND)                                 | 108.91    | 146.24        | -9.9213* |
| Age   | 44.60     | 43.08         | 1.2380   |
| Education   | 9.66      | 9.17          | 1.5164   |
| Farming experience  | 8.74      | 16.21         | -9.7791* |
| Household size  | 4.70      | 4.63          | 0.4705   |
| Farm size   | 1.40      | 1.61          | -2.0529* |
| Credit (in million VND)   | 51.923.77 | 59.987.22     | -2.0024* |
| *statistically significant at p<0.05  |           |               |          |

As can be gleaned from Table 49, average yield of certified farmers was about 10% higher than non-certified farmers. This suggests that sustainable farming systems effectively enable farmers to improve farm productivity.

Use of chemical fertilizer was significantly higher among non-certified farmers than certified farmers. Certified farmers were more likely to use organic fertilizer and manure than non-certified farmers. Altogether, compliance to sustainability standards appears to curb excessive use of NPK and other chemical fertilizer which can severely cause environmental problems such as greenhouse gas emission, soil degradation, and water pollution.

On the other hand, use of pesticides appear to higher among certified farmers compared to non-certified farmers. This has implications on both risks to chemical exposure among farmers and farm workers as well as compliance to mandatory requirements on allowed maximum residue level for pesticides.

The data also shows that difference in hired labour costs between certified and non-certified farms was statistically significant. The data suggests that certified farms generated more employment than non-certified farms. Use of family labour among non-certified farms was higher than in certified farms.

The difference in average credit between certified farms and non-certified farms was statistically significant. Average loan amount of non-certified farms was higher than certified farms.

| <b>Table 52. Production Costs and Returns: Certified and Non-Certified Farmers</b> |                  |                      |         |
|--|------------------|----------------------|---------|
| Factors  | Certified Farmer | Non-Certified Farmer | T-ratio |
| Price per kg of green beans (in thousand VND)                                      | 34.82            | 33.14                | 9.236*  |
| Production cost/ha (in million VND)  | 43,981.78        | 40,466.37            | 2.629*  |
| Gross sales/ha (in million VND)  | 112,347.36       | 97,229.38            | 4.369*  |
| Gross margin (in million VND)  | 68,365.58        | 56,763.02            | 4.218*  |
| Rate of return   | 1.575            | 1.484                | 1.343   |
| *statistically significant at $p < 0.05$   |                  |                      |         |

Certified farmers received a price significantly higher than non-certified farmers. With higher average yield and price per kg of green beans, average gross sales of certified farmers was 16% higher than non-certified farmers. Difference in rate of return between certified and non-certified farmers though was not significantly different.

## 2. The Sustainable Coffee Program

Author: Technoserve

Date of Publication: October 2013

Area: Vietnam

VSS: UTZ, Rainforest Alliance, 4C, Fairtrade

The following were the key opportunities identified in relation to the promotion of sustainable farming:

- a) More sustainable farming practices could increase coffee farmers' net incomes by 30%, from a base of about US\$1,500 per year (projection based on coffee price in 2013).
- b) Farmers could use soil testing to optimize their fertilizer selection, reducing overall input requirements and helping avert long-term soil acidification. Improved agro-input practices could boost yield by 10% while saving farmers over \$100 per year in fertilizer costs.
- c) Farmers could be trained and incentivized to monitor and reduce irrigation volumes. The average farmer could more than halve his/her irrigation levels while still maintaining high yields, saving as

much as \$125 per year in gross irrigation-related energy costs. If left unchecked, over-irrigation could deplete groundwater reserves in a drought year, causing substantial crop losses and market volatility.

An investment of approximately \$150 per farmer yields a return of nearly US\$ 500 in increased net income per farmer after 4-5 years.

### 3. Economic Analysis of Sustainable Coffee Farming

Author: Thong Quoc Ho

Date of publication: 2018

VSS: UTZ, Rainforest Alliance, 4C

Area: Central Highlands, Vietnam

| <b>Table 53. Economic Profile of Certified and Non-Certified Farmers</b>         |               |            |               |            |               |            |               |            |
|--|---------------|------------|---------------|------------|---------------|------------|---------------|------------|
|  | Dak Lak       |            | Gia Lai       |            | Lam Dong      |            | Total         |            |
|  | Non-Certified | Certified  | Non-Certified | Certified  | Non-Certified | Certified  | Non-Certified | Certified  |
| Coffee yield (MT/ha)   | 3.12          | 3.11       | 3.21 ***      | 3.84 ***   | 2.76 ***      | 2.52 ***   | 2.95 ***      | 3.19 ***   |
| Area (ha)  | 1.05 ***      | 1.28 ***   | 1.37 ***      | 1.79 ***   | 1.79 ***      | 2.52 ***   | 1.44 ***      | 1.74 ***   |
| Family labour (person days/ha)   | 224.07 ***    | 195.52 *** | 295.36 ***    | 234.18 *** | 215.47 ***    | 174.59 *** | 225.8 ***     | 202.06 *** |
| Hired labour (person days/ha)  | 28.43 ***     | 44.51 ***  | 74.39         | 82.93      | 35.28 ***     | 68.1 ***   | 35.62 ***     | 61.85 ***  |
| Chemical fertilizer (MT/ha)  | 2.14          | 2.15       | 3.07          | 2.76       | 2.47 **       | 2.72 **    | 2.38 *        | 2.47 *     |
| Irrigation water (m <sup>3</sup> /ha)  | 1.21 ***      | 1.40 ***   | 1.20          | 1.24       | 0.99 ***      | 0.86 ***   | 1.10 ***      | 1.22 ***   |
| Gross Income (million VND/ha)  | 117.49        | 120.28     | 125.14 ***    | 147.68 *** | 104.03        | 101.67     | 111.54 ***    | 123.99 *** |
| Net income (million VND/ha)  | 86.19         | 83.62      | 80.27 ***     | 95.43 ***  | 66.51         | 62.21      | 76.05 ***     | 81.95 ***  |
| *90% significance level<br>**95% significance level<br>***99% significance level |               |            |               |            |               |            |               |            |

Except in Dak Lak, certified farms achieved higher coffee yield than the non-certified farms. In terms of family labour, certified farms had lower utilization of family labour than non-certified farms. Certified farms though had higher number of hired labour than non-certified farms. Use of chemical fertilizer was generally higher among certified farms than in non-certified farms except in Gia Lai.

On a per area basis, difference in gross income between certified and non-certified farms was only significant in Gia Lai. Overall though, average gross income of certified farms was significantly higher than non-certified farms. Similar trend was observed in net income.



The study also looked into the eco-efficiency of certified and non-certified farms. The eco-efficiency indicator focused on the consumption of inputs at the farm level.

Certified farms have higher eco-efficiency levels than non-certified farms. However, overall average eco-efficiency scores were generally less than 50% which suggest the need for further improvement to reduce environmental waste and pollution. Reducing the consumption of environmentally detrimental inputs will result to cost-saving benefits, lower exposure to health hazards among farmers and farm workers, and better environmental management.

| <b>Table 54 . Comparison of Average Eco-efficiency between certified and non-certified farms</b> |        |        |        |        |
|--|--------|--------|--------|--------|
|  | 2012   | 2013   | 2014   | Pooled |
| <b>Certified Farms</b>   |        |        |        |        |
| Average Eco-efficiency   | 0.5425 | 0.4951 | 0.5013 | 0.5117 |
| No. of observations  | 348    | 399    | 394    | 1,141  |
| <b>Non-certified Farms</b>   |        |        |        |        |
| Average Eco-efficiency   | 0.4537 | 0.4440 | 0.4621 | 0.4533 |
| No. of observations  | 364    | 327    | 329    | 1,020  |

It can also be observed that the difference in average eco-efficiency gap between certified and non-certified farms narrowed over time. The study attributed the narrowing of eco-efficiency gap to reductions in the effort level of certified farms over time. Although certification was generally paid by importers and various development programs, farmers had to spend several extra working days to fulfil the compliance tasks of certification procedures and documentation. Data from the study indicated that number of these extra working days has declined over time (10.24 days in 2012, 9.16 days in 2013, and 8.30 days in 2014). As per study, the decline in extra working days spent by certified farms was primarily because the price premium derived from certification did not pay off in terms of the extra effort required.

| Table 55. Comparison of Average Efficiency Indicators between certified and non-certified farms |                         |       |       |                     |       |       |   |       |       |
|---|-------------------------|-------|-------|---------------------|-------|-------|---|-------|-------|
| Efficiency Indicators   | Average Mean Efficiency |       |       |                     |       |       | Wilcoxon test of certified vs non-certified (p value) |       |       |
|   | Certified Farms         |       |       | Non-Certified Farms |       |       |   |       |       |
|   | 2012                    | 2013  | 2014  | 2012                | 2013  | 2014  |   |       |       |
| Technical efficiency  | 0.659                   | 0.638 | 0.651 | 0.596               | 0.609 | 0.632 | 0.000 *   | 0.091 | 0.158 |
| Cost efficiency   | 0.482                   | 0.469 | 0.461 | 0.433               | 0.440 | 0.432 | 0.000 *   | 0.041 | 0.019 |
| Cost allocative efficiency  | 0.734                   | 0.738 | 0.708 | 0.729               | 0.724 | 0.683 | 0.826   | 0.412 | 0.023 |
| Environmental efficiency  | 0.276                   | 0.210 | 0.232 | 0.236               | 0.194 | 0.221 | 0.000 *   | 0.255 | 0.546 |
| Nutritive allocative efficiency   | 0.420                   | 0.327 | 0.356 | 0.400               | 0.319 | 0.354 | 0.049 *   | 0.799 | 0.696 |

Technical efficiency appears to increase over time for both certified and non-certified farms. Certified farms had higher technical efficiency than non-certified farms in all crop years.

Cost efficiency indicators among certified firms exhibited a downward trend although still higher than non-certified farms. However, difference in cost efficiency between certified and non-certified farms was statistically significant during the first year. During the first year, certified farmers used less inputs and their input combinations were cheaper and contained less aggregated nutrients. In the second crop year, certified farms performed better than non-certified farms in terms of cost efficiency but mainly due to the farmers using less inputs. During the 2014 crop year, certified farms had higher cost efficiency which was mainly driven by cost allocative efficiency (i.e. cheaper combinations of inputs). Technical training on improving the technically efficient use of inputs helped certified farms reached a higher level of both cost and environmental efficiency. Availability of market information on input prices and technical support on how to choose fewer nutrient contents in material inputs contributed to improved cost and environmentally efficiencies.

It should, however, be noted that although certified farms were more environmentally efficient than non-certified farms in all the three cropping years sampled, it was only during the first year that difference between certified and non-certified farms was statistically significant. It would seem that impact of sustainability certification was stronger during the first year due to intensive training and tended to wane in subsequent years as renewal usually was after three years.

#### 4. Vietnam: A business case for sustainable coffee production

Author: Technoserve

Date of publication: December 2013

VSS: Mainly 4C

Area: Vietnam

The study provides a good understanding on conditions under which sustainability certification is viable and with good potential to be beneficial to smallholders. The following are the key takeaways from the study:

- a) Sustainability certification was initiated by multinational exporters (branches/subsidiaries of the large coffee importers). During the first year, the focus was on the largest, high yielding coffee farms. This was based on the premise that certain scale was needed to make certification financially viable.
- b) Challenges encountered by many of the world's coffee farmers to be verified or certified are often related to: (i) rising costs of production, which make it hard to absorb the additional cost of sustainability certification or verification relative to economic benefits; and (ii) farms are not aggregated in such a way that the economics can be justified.
- c) The Vietnam coffee industry is well positioned to pursue certification. The country is the world's most competitive coffee producer with a cost of production significantly below other major coffee producing countries. Low production cost relative to other producing countries was attributed to cheaper nitrogen-based fertilizer, the use of family labour, and construction of own wells/pumps for irrigation. More importantly, coffee yield in Vietnam is among the highest in the world. This cost advantage also applies to the incremental costs of certification or verification. As can be seen in the table below, cost of certification is significantly lower than in other major producing countries.

| <b>Table 56. Comparative Verification Cost among major coffee producing countries</b>   |         |        |        |
|---|---------|--------|--------|
|   | Vietnam | Brazil | Africa |
| Cost per farmer (US\$)<br>Annual cost: includes auditing, one training session (group, classroom-based), and basic Internal Control System (ICS) management | 10      | 90     | 8      |
| Exports per farmer (lb)<br>Assumes 25% of farmers' total verified production is exported as "sustainable"   | 1,300   | 3,300  | 110    |
| Group verification cost<br>US\$/pound of green coffee beans   | 0.01    | 0.03   | 0.07   |
| Source: Kuit Consultancy; P&A; TechnoServe analysis   |         |        |        |

Lower cost of certification in Vietnam was attributed to the following factors:

- Low cost of aggregating farmers through group schemes: While farmers are not formally organized into aggregated units (e.g., cooperatives), exporters are able to leverage their relationship with collectors and aggregators to form large group schemes.
  - High yield: Despite farm sizes being relatively small (one hectare on average), yields are the highest in the world.
- d) Sustainable farming practices could help conserve environmental assets and increase coffee farmers' net incomes over 30%, from a base of about \$1,500 per year (based on 2013 prices). Increase in net income will be facilitated by: (i) sustained, higher yields; (ii) reduced fertilizer expenditure; and (ii) reduced irrigation expenditure.

#### 5. Vietnam Coffee: A COSA Survey of UTZ Certified Farms

Author: Committee on Sustainability Assessment (COSA)

Date: Completed December 2012 and May 2013

VSS: UTZ

Area: Dak Lak region

Respondents: mostly farmers associated with state-owned enterprises

The following were the key findings:

- a) Certified farmers received more training than non-certified farmers. The certified farmers reported an average of 12.2 hours of training compared to 8.8 hours for non-certified farmers. The difference was statistically significant. Training of certified farmers was conducted mainly by certified companies (their buyers).

This demonstrates that sustainability certification can be a channel for change. It also shows willingness of certified companies to more in farmers' human capital, which is an important element of capacity building and empowerment.

While there was little evidence about the actual quality of the training, the training enabled certified farmers to get similar yields with fewer inputs than non-certified farms.

- b) UTZ certified farms have reduced their use of agrochemicals (synthetic fertilizers and biocides) without significantly sacrificing yields compared to non-certified farms. This suggests an improvement of input use efficiencies among certified farmers.
- c) There was no significant difference between certified and non-certified farms in coffee yields or in prices to farmers. Difference in revenue between certified and non-certified farms was also not statistically significant.

As per the study, since Vietnamese farmers already had high coffee yield, there was little room for improvement. The state owned enterprises (SOEs), who were the anchor of most of the certification groups, reported though that UTZ certification resulted in better monitoring and management of farm practices. This resulted to better input use and efficiency among certified farms compared to non-certified farms.

- d) Certified farmers had significantly lower production costs when only explicit inputs were accounted for (fertilizer, biocides, paid labor, processing costs, annual depreciation of production assets, and reforestation costs). However, it was noted that the major component driving the difference was physical inputs (fertilizers and biocides), which on the average accounted for 60% of the production costs.

| <b>Table 57. Comparison of Explicit Input Costs between certified and non-certified farms</b> |                  |                     |
|---|------------------|---------------------|
| Explicit Input Costs  | Amount (US\$/ha) |                     |
|   | Certified Farms  | Non-Certified Farms |
| Fertilizer and biocides   | 1,264            | 1,965               |
| Paid labour   | 268              | 432                 |
| Others  | 386              | 585                 |
| Total explicit costs  | 1,921            | 3,012               |

- e) Both certified and control groups had high baseline performance related to protecting basic rights, maintaining safe work places, and strong communities. This meant that certification had little scope to further improve performance.
- f) Percentage number of certified farms restricting two or more vulnerable groups (people under 16, pregnant women, and untrained persons) from applying agrochemicals was significantly higher than among non-certified farms.
- g) The difference though in number of farms providing personal protective gear to those applying agrochemicals between certified and non-certified farms was not statistically significant.
- h) Percentage number of non-certified farms with ventilation for cooking smoke was higher among non-certified farms than certified farms. This indicator is a global proxy for quality housing and general family health.
- i) Apart from more efficient resource use, certified farms also demonstrated environmental benefits. A significantly higher percentage of certified farms used water saving measures. Impacts

on biocide use were significant with certified farmers using an average of less than one gram of the most toxic Class 1 biocides per hectare, compared to 141 grams on non-certified farms. The positive environmental indicators, such as recycling and reduced biocide use, likely also reflect some economic savings for producers. Finally, some of the certified farms practiced intercropping while majority of non-certified farms operated coffee monocultures.

#### 6. The True Price of Coffee from Vietnam

Authors: Leonardo Verkooijen, Adrian de Groot Ruiz, and Vincent Fobelets (all from True Price)

Date: March 2016

This study looked at the external costs of certified and non-certified coffee beans in Vietnam. External costs consist of environmental and social costs caused by economic activities which are not reflected in the prices charged for the goods and services being provided. The range of environmental and social costs included in the study is outlined in the table below.

| <b>Table 58 . External Costs of Coffee</b> |   |  |
|--|---|--|
| <b>Category</b>                            | <b>Externalities</b>  | <b>Specification</b>   |
| Resource use                               | Land use  | Land conversion and occupation   |
|  | Water use   | Use of scarce water  |
|  | Energy  | Use of non-renewable energy  |
|  | Materials   | Use of scarce materials  |
| Pollution                                  | Water pollution   | Eutrophication, acidification, marine ecotoxicity and freshwater ecotoxicity     |
|  | Air pollution   | Greenhouse gas emissions and other hazardous air pollutants                      |
|  | Soil pollution  | Terrestrial ecotoxicity and human toxicity                                       |
|  | Waste   | Waste and type of treatment  |
| Workers                                    | Health and safety   | Occupational accidents and breaches of health and safety standards               |
|  | Income  | Underpayment of hired labour (living wage) and family labour (living income)     |
|  | Child labour  | Hazardous and non-hazardous child labour   |
|  | Forced labour   | Forced adult and child labour  |
|  | Discrimination  | Subdivided into gender and other types of discrimination (religion, race...)     |
|  | Harassment  | Sexual and non-sexual harrassment  |
|  | Social security   | Social security provision, including annual, sick, maternity and paternity leave |
|  | Freedom of association  | Freedom for workers to form and/or join unions                                   |
|  | Overtime  | Excessive working hours  |
| Society                                    | All social externalities that have an impact on society at large (dependent on scope) |  |

The following are the key findings and insights from the study:

- a) In general, about 63% of the researched external costs in the coffee supply chain in Vietnam take place during the cultivation phase. Transportation of coffee beans – within Vietnam and to Europe and the United States for processing – accounts for 25% of total external costs. About 13% of the external costs are incurred during roasting of green beans and/or manufacture into instant coffee.
- b) Average external cost of cultivation was computed at Euro 1.25 per kilogram of green beans. Environmental costs comprised 96% of total external costs of cultivation. Social costs accounted for 4%. As per study, social costs were relatively low as most farmers had a decent income and there were minor health and safety and child labour issues during cultivation.
- c) Certified coffee has 20% lower external costs of cultivation than non-certified coffee. 84% of this change is caused by lower water usage, 15% by higher productivity of certified farms and 1% by better social conditions.
- d) Certified farms have lower water usage than non-certified farms. This results to lower energy use and air pollution.
- e) Fertilizer use among certified farms is higher than in non-certified farms. This does not, however, change the external costs per kilogram of beans significantly.
- f) Certified farms are, on the average, 13% more profitable than non-certified farms with an annual profit of Euro 1,695/ha compare to Euro 1,472/hectare.

## **B. SEAFOOD PRODUCTS**

### **1. Food Standards are Good – For Middle Class Farmers**

Authors: Henrik Hansen and Neda Trifkovic, Department of Economics, University of Copenhagen

Date: August 2016

VSS: GlobalGAP, GAA-BAP

Fishery product: aquaculture and capture

The study analysed the distributional impact of food standards on consumption expenditure (proxy measure of gains/benefits) using an original dataset from the Vietnamese Pangasius value chain. The following are the key findings and insights from the study:

- a) Retailers and international traders generally adopt two approaches in ensuring product quality and safety, namely:
  - Development of their own internal standards and certification schemes, which include visits at production and processing sites and quality inspection of products.
  - Retailers require producers and processors to obtain internationally recognized certificates. Certification substitutes for the active involvement of retailers in production and distribution monitoring. Standards such as GlobalGAP and BAP have primacy at the farm-level of the Pangasius value chain. GlobalGAP is presently the leading certification system in Europe, while retail chains in the United States, Canada, and United Kingdom favour BAP certification.

- b) Gain from adoption of food safety standards was an increase in consumption expenditure of more than 50% for the upper middle class. However, for adopters of food safety standards among the poorest and richest farmers, there was no systematic gain.
- c) The distribution of the effect of adoption of standards is an outcome of two different conditions:
- For the poorest farmers, there was no gain because of the high costs of financing the investment.
  - For the wealthiest farmers, there was no gain because they were already able to get high prices on their fish, partly because they produced fish of high quality and partly because they had good working relations with the processors.

Adoption of food standards in the Vietnamese Pangasius value chains benefitted the upper middle-class directly. Benefits for the poorer segment were either absent or, at best, second order labour market effects.

## 2. Food Standards and Vertical Coordination in Aquaculture: The Case of Pangasius from Vietnam

Author: Neda Trifković

Date: January 2014

VSS: GlobalGAP, GAA-BAP, ASC, ISO 9001, HACCP, BRC

The following are the key findings from the study:

- d) Adoption of standards is skewed towards larger farms. While 36% of farms with aquaculture surface larger than 3ha apply standards, less than 20% of farms smaller than 1ha do the same.

The key motivation among farmers to adopt standards was to improve product quality and to decrease the occurrence of fish diseases. The emphasis on quality is important because farmers get paid according to the quality grades set by processors. Other motivations were to achieve higher profits and better market access.

| <b>Table 59. Motivations to Adopt Food Standards</b> |               |          |                              |
|--|---------------|----------|------------------------------|
| <b>Motivation</b>                                    | <b>Number</b> | <b>%</b> | <b>Chosen Most Important</b> |
| Economic Rents (upgrading)                           |               |          |                              |
| To enhance product quality                           | 24            | 63       | 12                           |
| To decrease occurrence of fish diseases              | 24            | 63       | 8                            |
| To sell at higher price                              | 14            | 37       | 4                            |
| To sell in better-paying markets                     | 14            | 37       | 4                            |
| Because competitors will have it                     | 5             | 13       |                              |
| To reduce production costs                           | 1             | 3        | 1                            |
| To reduce number of inspections and/or testing       | 3             | 8        |                              |
| To improve management capacity                       | 3             | 8        |                              |
| Market Access  |               |          |                              |

| <b>Table 59. Motivations to Adopt Food Standards</b> |               |          |                              |
|--|---------------|----------|------------------------------|
| <b>Motivation</b>                                    | <b>Number</b> | <b>%</b> | <b>Chosen Most Important</b> |
| To meet domestic client requirements                 | 14            | 37       | 4                            |
| To meet international market requirements            | 8             | 21       | 1                            |
| To increase export                                   | 8             | 21       | 2                            |
| To improve reputation                                | 9             | 24       |                              |
| Popularized by government                            | 1             | 3        |                              |

e) The following were the top reasons for non-adoption of standards:

- Financial constraints
- Lack of personal capacity
- No guarantee of price premium
- Insufficient demand for certified production

| <b>Table 60. Reasons for Not Adopting Food Standards</b> |               |          |                              |
|--|---------------|----------|------------------------------|
| <b>Reason</b>  | <b>Number</b> | <b>%</b> | <b>Chosen Most Important</b> |
| Establishment upgrade costs                              | 40            | 40.82    | 17                           |
| Lack of competence/experience                            | 36            | 36.73    | 15                           |
| Not aware of benefits                                    | 20            | 20.41    | 6                            |
| Impracticality   | 20            | 20.41    | 6                            |
| Not demanded locally                                     | 18            | 18.37    | 7                            |
| Cost of certification                                    | 18            | 18.37    | 3                            |
| Costs of consultancy                                     | 15            | 15.31    | 2                            |
| Low commercial return                                    | 9             | 9.18     | 1                            |
| It takes long time to obtain certification               | 5             | 5.10     | 1                            |
| Not demanded in foreign markets                          | 3             | 3.06     |                              |
| No management commitment                                 | 2             | 2.04     | 1                            |
| Do not know  | 11            | 11.22    | 6                            |

f) Among processors, the top motives for certification were to meet the customer requirements with respect to standards and, subsequently, increase consumer confidence and trust. Certification is considered by processors as crucial for better market access as it leads to improved export opportunities, increased sale volumes, and increased number of customers.

Purchase of certified Pangasius was perceived by processors as a means of reducing risk of purchasing an unsatisfactory product and lowering of costs through reduced monitoring of farms, quality inspection, and product rejection at the export stage.

d) Among farmers, the reduction of price variation was ranked as the most important benefit from standards. About 47% of the certified farmers indicated that they received higher prices for their Pangasius and 42% observed lower price variation. For some farmers, adoption of standards translated into less disease outbreaks, higher output, less worker injuries, environmental improvements and more confidence in the production process. Adoption of standards was also



considered beneficial as it reduced the use of poisonous medicine which can harm the quality of fish.

- e) For processing companies, the expected benefits of standards were related to improved market access. Adoption of standards was also a way to reduce production and distribution costs especially those related to product recall and compensation for consumers.

### 3. Report on costs and benefits of compliance with voluntary market based labelling and certification schemes

Authors: Francis Murray and Dimitar Taskov

Date: February 2018

VSS: ASC, FoS, GlobalGAP, GAA-BAP

Geographic Coverage: European fisheries and aquaculture sectors/European seafood market

Fishery products: aquaculture with a high degree of focus on salmon as case study

The study is an initiative under PrimeFish. The overall objective of PrimeFish is to enhance the economic sustainability and competitiveness of European fisheries and aquaculture sectors. One of the key focus areas of the project is the analysis of the European seafood market in general and five specific seafood supply-chains in particular; cod, herring, trout, seabass, seabream, salmon and pangasius. Although this study is not specific to Philippines and Vietnam aquaculture food products, it provides good insights on costs and benefits of sustainability certifications in global value chains. It provides a chainwide perspective on how costs and benefits from sustainability certifications are shared and distributed among the various actors in global value chains.

The following are the key findings and insights from the study:

- a) Some companies are better positioned to profit from sustainability initiatives than others. Similarly, not all sustainability initiatives will result in an economic benefit, just as well as not all economic activities will benefit the wider society. The question therefore transitions from “whether” to “when” there is a scope for mutual benefit.

The following are the potential commercial benefits to certification:

- Gaining a premium price
- Access to otherwise inaccessible markets
- Reduction of production costs

The ability of certifications to facilitate access to premium price and markets depends on the demand in target markets for the attributes embodied by the standards. Some certifications simply ensure continued access to larger more commoditized markets with no price premium guarantees. Firms may or may not seek direct public recognition for their efforts depending on the type of value chain they participate in (i.e. global vs local) and their position in it, further reflected in choice of certification model; business to business (B2B) or business to consumer with a consumer facing label (B2C).

- b) The following are the pre-conditions for successful eco-branding:

- Reliable information on product environmental performance made available to consumers e.g. codified in a credible 'sustainability' logo displayed on the packaging
- Recognition of, and willingness to pay for the extra sustainability effort
- Differentiation should be difficult to imitate.

However, a key challenge with seafood commodities is that they are by definition undifferentiated products. After food safety assurance, price is the definitive factor in consumer choice. Certification, whether broad or narrow in scope then aims to differentiate products on largely intangible sustainability attributes. Differentiation is successful if it results in a price premium or improved market share (increased sales) compared to the baseline stock. The more stocks become certified, however, the more their uniqueness gets undermined. This tends to be a ubiquitous problem except for more socially focussed standards such as 'Fairtrade' who navigate this problem by embedding an equitable producer-premium as a core market attribute. First-movers seen to be exceeding conventional compliance thresholds may also gain differentiation advantage until eroded by mass adoption of the same or similar certifications by competitors.

- c) Retailers dictate conditions of supply to their supply chains. Strategies of retailers are based on opportunities and threats they themselves are facing. Given their global sourcing and position as lead firms in 'global value chains' (Ponte, 2012), retailers are under pressure by various interest group to take ever more proactive roles in sustainability stewardship.

From a retailer perspective, certification commitments serve as:

- Strategy for codification and independent verification of CSR efforts in line with increased demand for transparency and ease of monitoring by stakeholders (Dawkins and Lewis, 2003)
  - Transfer of auditing costs to the previous stages of the value chain
  - A means to protect retailers' reputation from attacks by civil-society pressure groups. As such the retail sector has had a major role to play in the proliferation of sustainability standards, and creating a market for sustainability (Bush et al., 2013a).
- d) Among seafood producers, compliance is viewed a necessity for continued access to sizeable market sectors but without affording a price premium to cover additional costs of compliance. Costs of compliance escalate where multiple recurrent compliance audits for different standards are required to meet the divergent or overlapping demands of different market segments. Adding to the cost pressure is the periodic revision of standards with the aim of driving continuous performance improvement by individual farms. Seafood producers view lead companies (retailers and processors) as accruing direct commercial benefits of certification in terms of brand protection while passing a disproportionate share of costs to them.
- e) Theoretically the geographic distribution and overlap between alternative certification schemes can be attributed to:
- Proximity to and ability to supply demand in certification-centric markets

- More local reputational considerations responding to regulatory and advocacy group pressures Location and industry-specific challenges in meeting scheme-specific compliance requirements

f) The following are the key conclusions made by the study:

- Other than for earlier adopters or schemes with in-built premium guarantees (e.g. Fairtrade), most voluntary sustainability standards guarantee continued access to certification-centric market segments (linked to reputational issues and advocacy group pressure) over and above any price-premium.
- The burden of compliance and auditing transaction costs fall most heavily on producers low in the value-chain.

#### 4. Lessons Learned from conducting a cost - benefit analysis for Aquaculture Stewardship Council certified farms in Vietnam: The business case to illustrate value of certification through case studies of ASC certified farms

Authors: WWF Austria, WWF Vietnam and ASC

Date: April 2017

Geographic Scope: Mekong Delta

The study focused on understanding the farmer benefits of implementing the ASC requirements in terms of social, environmental, and economic aspects. It analysed investment costs, added benefits, and avoided costs across economic, social and environmental effects on a quantitative and qualitative level.

| <b>Table 61 . Areas of Assessment</b> |   |
|---------------------------------------|---|
| Areas of Assessment                   | Examples  |
| Investment Costs                      | Infrastructure, repairs, worker conditions, farmer training, certification costs and fees   |
| Added Benefits                        | Increased access to markets and premium pricing, workers income, and production sustainability (survival ratio, the feed conversion rate, and yield). |
| Avoided Costs (or cost savings)       | Reduced losses from improved stock, improved traceability, and from improved relationship with the community  |

Certification costs include expenses for farm upgrading, improving production conditions and welfare of workers, and other changes on farm to meet the ASC standard requirements. Other costs include costs of the initial application, audits and ongoing certification costs.

Although the findings of the study were not conclusive due to small sample size and causality factors, the research the following indications on potential benefits and costs of ASC certifications.

- a) The drugs, chemicals and supplement costs on the ASC farms were much lower than the non-ASC farms. For shrimp farms, the costs were about 70% less and about 35% less on Pangasius farms. The reduction in costs was attributed to compliance with the provisions of ASC in controlling the use of medicines and chemicals. The controlled use of medicines and chemicals also contributed in improving the environmental benefits.

- b) The ASC farms in the study had very high interest expenses, due to the need to invest in pond repairs and renovations to meet the compliance requirements of the ASC certification standards. For short-term loans, this was particularly high and severely eroded any of the cost savings. This highlighted the potential to think of other strategies to address this issue, including working with banks for preferential rates and/or setting up loan funds.
- c) Higher revenues were observed in ASC certified shrimp farms with various contributing factors such as higher selling prices due to ASC certification, larger size, and reduced number of middlemen. Profits ranged from + 3% to +123% in the ASC shrimp farms in the study.

The financial analysis for Pangasius of the farms in the study, indicated a better financial situation of the ASC farms over the non-ASC farms of participating farms, primarily due to lower production costs (reduced chemical expenditures) and slightly higher prices.

As per study, the above findings cannot be considered conclusive because of the high variability of the farms compared and market factors which were not part of the research.

- d) Labour costs were higher on the farms in the case study. Among Pangasius farms, labour efficiency of the ASC farms was higher than non-ASC farms. ASC farm created a better welfare for workers and they gained better efficiency.

By following the requirements on labour of ASC standards, the farm workers in ASC farms had higher salaries with full benefits under the labour law. The ASC certified farms provided higher social benefit for the workers than the non-certified farms in the study. Social welfare of workers was also guaranteed, and the ASC farms contributed more to local communities.

The cost of upgrading infrastructure, living conditions of workers accounted for only low ratio in total costs of the ASC farms in the study. One possible reason is that these farms already have other certification (e.g. GAA, GlobalGAP) and the difference in the standards' requirements was minimal.

- e) The multiplicity of standards raised questions of interoperability and the burden on farmers to meet multiple standards.

## 5. Controversy over Voluntary Environmental Standards: A Socioeconomic Analysis of the Marine Stewardship Council

Authors: Frank Wijen and Mireille Chiroleu-Assouline

Date: 2019

The study looked into how controversy over voluntary environmental standards hampers or drives sustainability transitions. It then analysed the controversy from the vantage points of economics and sociology sustainability transitions.

The following are the key findings:

- a) Certification is valid for 5 years and subject to a yearly audit. The certification costs depend on the size and complexity of the fishery. A full MSC certification assessment ranges from US\$ 20,000 for small, community-based fisheries to USD 300,000 for large, industrial fisheries. (Christian et al., 2013; Howes, 2008) Pre-assessment costs can range from a few thousand to tens of thousands of USD. Annual audits typically amount to 15% to 20% of the price of the initial full assessment. (Jaffry, Glenn, Ghulam, Willis, & Delanbanque, 2016) Moreover, the reassessment or compliance costs for fisheries are, in some cases, even higher than the initial costs of MSC certification. (Bellchambers et al., 2014) Adopters pay all assessment costs to conformity assessment bodies.
- b) MSC charges all license holders an annual fee based on their sales of certified fish. Firms using the MSC ecolabel on retailed consumer products also need to pay royalties, starting at 0.5% of the net wholesale value of their MSC-labelled seafood sales.
- c) With a global adoption rate of 12% of seafood caught in 2017, MSC is one of the leading environmental standards in terms of seafood volume. MSC's geographic distribution, though, is highly skewed because adopters are predominantly large and located in North America and Northwestern Europe.
- d) The MSC scheme exhibited an average 13% price premium for retailers compared to non-labelled products in the United Kingdom. (Asche et al., 2015; Roheim, Asche, & Santos, 2011; Sogn-Grundvåg, Larsen, & Young, 2014)

Substantial heterogeneity existed, though, in the range of price premiums across retailers. (Asche et al., 2015) The price premium for MSC-certified salmon varied widely, ranging from none in the high-end retail chains (such as Tesco) to very high in the low-end chains (with 28% for Lidl and 56% for Asda).

In Germany, the average price premium for MSC-labeled seafood was very low (4%), because the market associates private labels with lower prices. (Bronnmann & Asche, 2016)

The Spanish fish-processing industry showed no significant differences in economic performance between MSC-certified and uncertified processing firms. (Miret-Pastor, Peiró-Signes, & Herrera-Racionera, 2014) No evidence of price markups was found for certified fish at the dockside level. (Blomquist, Bartolino, & Waldo, 2015; Stemle et al., 2015; Wakamatsu, 2014)

- e) The state of the world's marine seafood stocks has not improved overall. The share of seafood stocks within biologically sustainable levels decreased from 90% in 1974 to 69% in 2013, so 31% were overfished. Fully fished stocks accounted for 58% and under fished stocks represented 11%. The latter decreased almost continuously from 1974 to 2013, while the former initially decreased but from 1989 onward increased again. This raised the question of how the MSC standards have affected the global production and consumption of seafood.
- f) Proponents argue that the MSC standards are imperfect but reasonably effective in terms of protecting marine life. (Kalfagianni & Pattberg, 2013a, 2013b; Miller & Bush, 2015) The likelihood of overfishing is three to five times smaller for MSC-certified seafood, thus correctly signalling that it is more sustainable, even though causality is hard to establish. (Gutierrez et al., 2012) The

MSC standards are perceived by many consumers as indicators of sustainable seafood, although the differences with other schemes remain unclear to them. (Jacquet et al., 2010)

- g) Fisheries certified by MSC are not considered the most environmentally vulnerable by experts (Kalfagianni & Pattberg, 2013a). Many critiques pertain to MSC's definition of "sustainable fishery," ignorance of substantial bycatch (Campana et al., 2016; National Public Radio [NPR], 2013), and allegations of incomplete or inaccurate assessment of sustainable stocks (Froese & Proelss, 2012; NPR, 2013).
- h) One study argued that MSC certification does not guarantee the correct setting and enforcement of fishing quotas in the Northeast Atlantic (Opitz et al., 2016), even though MSC has recently tightened the internal control procedures to enhance the likelihood of detecting noncompliance (Gulbrandsen & Auld, 2016). Moreover, noncompliant fisheries are recertified, even in the absence of measures to avoid future overfishing. (Brown, Agnew, & Martin, 2016; Christian et al., 2013; NPR, 2013)
- i) MSC has largely excluded small fisheries in the South, whose capacity to apply for certification is lower. (Ponte, 2008; Stratoudakis et al., 2015)
- j) The adoption process is also perceived as inefficient because of the distribution of economic benefits along the supply chain, in which dominant retailers appropriate an "unfair" part of the material gains. This raises the question of what constitutes a "fair price": Should it be based on average or producer-specific costs, sales, or profits? (Reinecke & Ansari, 2015) It also raises the question of why social equity was excluded from the MSC criteria. (Parkes et al., 2010) The absence of price premiums at the producer level may compromise the adoption propensity of fisheries.
- k) While the public benefits are evident, the private payoff of certification can be negative given the high certification costs. (Christian et al., 2013; Howes, 2008) Fisheries may be reluctant to apply for certification, not only because of the poor financial prospects but also because of the red tape stemming from certification and the fear to see a differentiation advantage dissipate as more fisheries get certified. (Goyert et al., 2010)
- l) The adoption of MSC certification by fisheries and food processors was increasingly pushed by retailers, with noncertified firms risking to lose sales markets (Goyert et al., 2010). Especially after large customers such as Sainsbury and Walmart embraced the MSC standard, upstream suppliers were forced to do likewise to qualify for selling to those retailers, notably in North America and Northwestern Europe. (Gulbrandsen, 2010).

Instead of setting a collaborative framework, the MSC standard was imposed upon upstream actors without guaranteeing them a fair share of the economic benefits. This forced adoption negatively affected the ecological and societal outcomes of the MSC scheme. (Hadjimichael & Hegland, 2016)

- m) Early-adopting retailers sought to differentiate themselves from their competitors, thereby realizing a price premium or additional sales volumes from customers who perceive the sustainable nature as an added value. (King et al., 2012) Those joining later were primarily

interested in accessing selective supply chains, where MSC certification was a hygiene factor to be met by all suppliers. (King et al., 2012)

Retailers that had been under fire from environmentalists like Walmart, adopted the MSC standard to build a more sustainable image and regain legitimacy. Late adopters who joined for legitimacy reasons felt compelled to follow suit. (Sine, David, and Mitsunashi, 2007) This conformity pressure was clearly higher in North America and Northwestern Europe, where societal expectations of sustainable seafood practices were higher. Firms that feel pressured (by their customers) to use a standard are more likely to adopt it symbolically, without living up to the substantive requirements (Weber, Davis, & Lounsbury, 2009).

6. State of Sustainability Initiatives Review: Standards and the Blue Economy  
Authors: Jason Potts, Ann Wilkings, Matthew Lynch, and Scott McFatridge  
Date: 2016  
VSS: ASC, MSC, FOS, GAA-BAP, GlobalGAP, IFOAM, Naturland, etc.  
Products: Seafood

The study looked at the market and performance characteristics of international sustainability standards operating across both the wild catch and aquaculture sectors. Below is the summary of main findings: (from executive summary)

- a) Production of certified seafood has grown rapidly over the past decade and now represents a significant portion of global production. Between 2003 and 2015, certified sustainable seafood (both aquaculture and wild catch) grew from 500,000 metric tons (0.5% of global production) to 23 million metric tons (14% of global production) at a rate of 35% per annum (10 times faster than the growth of global seafood production over the same time period).
- b) The estimated retail value of certified seafood reached US\$11.5 billion in 2015, with demand being driven by manufacturers and retailers in developed-country markets. Global demand for sustainable seafood is driven almost entirely by Japan, North America and Europe. Manufacturers and retailers serving these markets have driven demand through corporate commitments to sustainable sourcing. Near-term growth in demand for sustainable seafood is likely to be driven by continuing efforts to fulfil corporate commitments and market access requirements, rather than by consumers seeking sustainable products or individual companies seeking brand differentiation.
- c) Eighty percent of certified seafood is wild catch, but certified aquaculture is growing twice as fast as certified wild catch. Historically, the most pronounced seafood related sustainability challenges have revolved around the maintenance of stock levels of wild fish. As a result, the supply and demand for seafood certification has largely focused on capture fishing. Over the last decade, as a result of supply constraints in certified wild catch combined with the growing importance of aquaculture production, certified aquaculture production has grown 76% per annum, more than twice the rate of growth of certified wild catch.
- d) Five species groups account for more than two-thirds of certified seafood production. Sustainable seafood is concentrated in a relatively small number of species groups. With the exception of certified Peruvian anchoveta (29% of sustainable seafood production), the main species groups,

cod (16%, including Alaska pollock), salmon (15%), tuna (8%) and mackerel (4%), represent high-value species destined for developed country retail markets. By comparison, these same species groups account for a mere 15% of total global seafood production.

- e) Five countries account for two-thirds of certified seafood production. Certified seafood production is highly concentrated among a limited number of countries: Peru (25%), the United States (15%), Norway (11%), Chile (8%), and Russia (6%). Although North America and Europe account for 63% of certified seafood destined for retail markets, Latin America represents an important source of certified seafood overall. Asia, which accounts for 69% of global seafood production, only accounts for 11% of certified production.
- f) Data scarcity threatens the viability of continued rapid growth in wild catch certification. One of the prerequisites to sustainable stock management of wild catch is accurate and timely data on actual stock levels. Based on current estimates, comprehensive assessments exist for between 17 and 25% of the global catch. Further growth will depend on addressing the problem of unassessed stocks. It remains far from clear whether market demand for certified seafood alone will be sufficient to drive the necessary investments in comprehensive stock assessments.
- g) Seafood standards, perhaps due to their relatively young age, have focused on setting universal requirements rather than processes for local adaptation, potentially deepening the isolation of specific segments of the supply chain. Most of the standards reviewed do not have significant processes in place to accommodate smallholder or regional interests. The most common strategy for enabling uptake at the local level has been through the implementation of external government led national strategies for certification.

7. Reducing Unnecessary Regulatory Burden: The Philippine Tuna Industry  
Authors: Gilberto M. Llanto, Ma. Kristina P. Ortiz, Cherry Ann D. Madriaga  
Date: 15 December 2016  
Geographic Scope: Philippines  
Focus: Mandatory Requirements/Tuna

The study objectives were to (i) provide regulatory mapping imposed on the local tuna industry; (ii) identify those regulations considered as unnecessary or too burdensome to the industry; and (c) provide some recommendations on removing unnecessary regulations. The following are the key findings and recommendations:

- a) In each stage of the value chain compliance with various government regulations is a necessary undertaking by the private sector in the tuna industry. Overall, the regulations imposed on the tuna industry especially those concerned with food safety standards make sense and are necessary. However, there is a case for improving the regulatory framework of the tuna industry, especially the procedures for registration, licensing, inspection of fish processing plants, and product registration,
- b) The regulatory issues that were identified by the study primarily focused on the following:
  - Acquiring business permit



- Acquiring registration and licenses for all types of fishing vessels, from MARINA, BFAR, and the LGU
  - Acquiring LTO from FDA and possible case of duplication of inspection process by the BFAR and FDA
  - Acquiring CPR from the FDA
  - The Qualified Person Industry Regulatory Affairs (QPIRA) of FDA
  - Presence of BFAR signatories for the regulatory instruments and others
- c) The process of registering a business differs across municipalities and cities. Cebu City, for example, has 15 steps for registration, the shortest number of steps among the study areas covered in the World Bank-International Finance Corporation (2010) report, but it takes 31 days to finish it. Iloilo City registered the longest time (56 days) to complete the 26 registration steps. The average for all the areas is 18 steps in 33 days. There is a need to reduce the processing time to get permits and licenses parallel to simplifying the procedures.

Effective implementation of Joint Memorandum Circular (JMC) No. 1, series of 2016 will reduce the processing time to two days for new business permit applications and one day for renewals. The JMC also directs LGUs to use a unified application form for new business applicants and strongly encourages them to adopt an automated system in conducting government transactions. It also provides for the setting-up of a Business One-Stop-Shop (BOSS) facility for business registrations

- d) There is a need to re-examine the fees and charges imposed by both local and national governments. For instance, businesses are required to pay for barangay clearance which costs around PHP 500.00 or approximately USD10. While, the cost of acquiring barangay clearance is minimal, there seems to be a need to review the necessity of this requirement because it also imposes transaction costs to businesses. In the most recent review of the Local Government Code of 1991, the DILG (2015) noted that having various requirements for securing Mayor's permit which includes the barangay clearance, among others, adds to the complication of tax administration in local governments. The JMC encouraged LGUs to remove barangay clearance as a documentary requirement in acquiring business permit and include it instead as a requirement during the pre-registration stage, i.e. in securing Occupancy Permit / Certificate of Occupancy.
- e) Securing clearances from concerned national government agencies (Philhealth, BIR, etc.) as prerequisites for the business registration and permit could be a major challenge for business firms. The JMC still includes this provision under Section 6.2 which necessitates business permit applicants to comply with all national laws and regulatory requirements including, but not limited to, clearances/licenses/certificates required by other agencies (e.g. FDA for processors/food establishments).

Securing local permits and clearances depends on the efficiency of such national government agencies in processing the business firms' application for national clearances and their accessibility. If they are not easily accessible, then delays in securing the clearances contribute to the high transaction costs for securing such national government clearances. For instance, FDA and the Philippine Shippers' Bureau are only present in selected cities/provinces.

- f) There is a need to professionalize the staff in-charge of processing business permits. Most of the staff are coterminous with the incumbent City Mayor. Understaffing is also a constraint among LGUs. The current set-up weakens the business processing and licensing system, which may subject it to the vagaries of local politics.
- g) Different government agencies handle the registration and licensing of fishing vessels. MARINA handles the registration of all vessels while BFAR issues the commercial fishing licenses. Both impose fees corresponding to the size of the ship. Although requirements for the two vary as their objectives are not the same, complying with the registration and licensing requirements was difficult for fishing vessels, especially since some of the regional offices of MARINA and BFAR may be not in the same city or municipality. This leads to high transaction costs for players of the tuna industry in the production stage of the value chain. Compliance becomes an issue owing to the location of MARINA and BFAR regional offices.

BFAR has set-up a satellite office in General Santos and this may have ease the transaction costs related to procurement of licenses of fishing vessels.

Inadequate number of trained staff (for example, fish inspectors in MARINA could lead to delays in registration, and in the issuance of licenses, in the case of BFAR, an issue is the proper scheduling of the site visits to be made by a limited number of staff.

- h) Municipal fishing vessel licenses are issued by the city or municipality. However, there is no uniform process or requirements for the issuing of licenses in the municipalities or cities. The amount of license fees also varies depending on the municipality or city ordinance.
- i) FDA has shifted to online application from a manual procedure starting 2013 following FDA Memorandum Circular No. 2013-001 and Republic Act No. 8792, also known as E-Commerce Act of 200021. Industry sources revealed that despite the online application for LTO the process of securing it has remained tedious and costly, especially for the small fish operators.

Fish exporters and processing plants have to wait for the inspection/assessment visit of FDA inspectors. Inspection is scheduled but the actual inspection may be delayed and may take more time than what the FDA claims according to industry sources. This affects not only the tuna industry but also those other food and beverage manufacturing establishments in the country that require FDA inspection and license to operate.

- j) There appears to be some overlap between BFAR and FDA inspections. Both the LTO and the HACCP certification require the inspection of processing plants and facilities and to some extent, there is a duplication of efforts to inspect and assess. Both BFAR and FDA inspectors visit the fish processing plants and facilities at different times for different purposes but in those visits, the same activities are undertaken. BFAR conducts a more comprehensive inspection than the FDA because the requirements for a HACCP certification are detailed and rigorous. The HACCP certification is a basic requirement by the EU and the U.S. for imported food commodities.
- k) The CPR, which is issued by the FDA, is valid for two years during the initial registration. During renewal, it is valid for five years provided that its holder conforms to the pertinent standards and

requirements including labelling regulations. Exporters and processors found this laborious and costly for the same reasons as the LTO.

There appears also to be a lack of proper enforcement of the CPR. Companies are required to get a CPR for all products. To cut on costs, some companies only get CPR for their most dominant products. There is also not much incentive to comply since concerned regulators do not conduct regular inspection on food products in the market. The CPR is an important instrument on safety and traceability of food products.

Memorandum Circular No. 5 series of 1991 issued by the Bureau of Food and Drug, the forerunner of FDA, sought to encourage the companies to designate a liaison officer to register for official transactions with the Bureau. In 2013, the FDA issued Memorandum Circular No. 2013-003 to inform the industry about its training and accreditation seminars of liaison officers and regulatory affairs officers to be Qualified Persons in Industry Regulatory Affairs (QPIRA). Only those who completed the training and accreditation have the authority to transact business with FDA. The objective of the training and accreditation of liaison officers and regulatory affairs officers is to develop the competence of QPIRAs in preparing and submitting the correct and complete applications and related documents. The submission of correct and complete documents will ensure quick evaluation and approval without undue delay.

Small firms, especially those based in the provinces, may not be able to afford the cost of the training. Aside from the training fee of PHP 6,000, participants outside of Metro Manila, Davao, and Cebu have to spend for transportation costs/airfare and accommodation.

- l) The certificates and licenses (e.g. the Hazard Analysis Critical Control Points (HACCP) Certification) issued by the BFAR are important especially for exporters because without these, the importing country will reject the tuna export products and they can also be blacklisted. In some cases, the absence of official signatories in the BFAR offices contributes to the delay in issuance of licenses.

The Certification for HACCP Recognition Accreditation requires a joint inspection by representatives from both the regional and central office (based in Metro Manila). Joint inspection is neither an efficient nor a practical approach to facilitating the issuance of the HACCP certification/accreditation. There could be delays because of scheduling and availability of the central office inspector.

Although BFAR is willing to allow its regional offices to undertake the inspection process on their own, they have to be ISO-certified first and accredited based on agreements with regional fishing organizations.

- m) Exporters have to secure an Export Commodity Clearance (ECC) prior to actual shipment of products. They either have to go to the BFAR central or regional office for the ECC signatures. Sometimes getting the ECC can be difficult because signatories are not always in their office. A solution proposed by the BFAR is to maintain offices at airports and seaports to make signatories more accessible but this does not seem feasible because of budgetary constraint.

## C. MEAT

### 1. Scoping Study on Reducing Unnecessary Regulatory Burdens in the Philippine Food Manufacturing Industry

Authors: Nerlita M. Manalili, Suzette Simondac, Imelda V. Valenton, and Mara Michelle Q. Pangilinan

Date: June 2017

Product: Processed Meat

Scope: Mandatory Requirements

Geographic Coverage: Philippines

The study mapped the existing procedures and processes to meet regulations on the sector with emphasis on the gaps and limitations of prevailing processes/procedures. The following are the key findings:

- a) The joint DOH-FDA and DA-NMIS Circular No. 1 Series of 2016 “Clarification on the Transfer of Regulatory Functions from the NMIS to the FDA Over Processed Meat Products” delineated the functions and shared responsibilities of DA-NMIS and DOH-FDA in the regulation of meat products. Specifically, Section 15(b), Article V of the IRR of the Food Safety Act of 2013, mandates FDA to be responsible in the assurance of safety of processed and pre-packaged food products, whether locally produced or imported, including meat products.

Importer/distributor of processed meat are required to present their LTO and CPR (both from FDA) to the Bureau of Customs prior to the release of products from the port. Exporters, on the other hand, need to secure export commodity clearance from FDA prior to exportation of processed meat, as required by the country of destination. Through the ECC, both FDA and exporting countries can track product details as well as the source and destination of products. Based on the general procedure of FDA, processing time for ECC would take about 30 minutes to 1 hour. Any significant delay is due to the inadequacy of information and document. FDA will still avail the services of NMIS laboratory for testing prior to issuance of ECC.

Interviews and focus group discussions conducted by the study indicated that there were delays in the issuance of the licenses and clearances primarily because FDA lacked the personnel. Clients and NMIS, themselves were not so clear on the transfer issue (other than for streamlining purposes) when NMIS has been said to be performing the job well and for consecutive years had been cited for efficient delivery of services among DA attached agencies.

- b) A meat company does not have their own slaughterhouse but they have to comply with requirements and have to deal with NMIS accredited slaughterhouses. The challenge was on identifying nearest accredited slaughterhouses and on the capability of NMIS to monitor compliance.

## D. COCONUT

### 1. Choke Points and Opportunities in the Supply Chain of ASEAN Agricultural Products: A Philippine Country Study

Authors: Roehlano M. Briones and Danilo C. Israel

Date: 2014

Product: Coconut Oil

Scope: Mandatory requirements

Geographic Coverage: Philippines

This study was part of a multicountry project that examined “choke points” in the supply chain of agricultural products within ASEAN member-states and the whole ASEAN region. The main objective of the exercise was to help improve the movement of goods from farm to firms and to consumers domestically and regionally, thereby moving toward a single production base in agricultural products in the ASEAN region. The findings presented below are for the coconut oil supply chain in the Philippines.

- a) Movement of copra and coconut products within the Philippines is not hampered by any regulation except for quarantine to prevent the spread of diseases.
- b) Local service providers operating within the port are required to obtain permit from the Philippine Ports Authority and are regulated by the Philippine Shippers’ Bureau of the Department of Transportation and Communications. The issuance of licenses and permits does not require any special training. No limitations or restrictions are imposed on the services but the following requirements must be complied: (i) mandatory insurance; (ii) minimum capitalization of PhP 4 million; and (iii) must be 100% Filipino owned.

Companies and the industry as a whole did not perceive requirements to be serious limitations or constraints.

- d) Export procedures have been simplified. Laboratory testing can be done by private laboratories and PCA. The testing laboratories are available near the port and are generally adequate.
- e) Functions of the BOC which include collection of border taxes, border control of goods, and trade facilitation have been fully computerized. Likewise, procedures have been simplified which exporters appreciate.
- f) Coordination among government agencies with regulatory functions was rated “very strong”.

## **MANDATORY REQUIREMENTS**

### **2. Philippines Non-Tariff Measures Project**

Author: Cecilia V. Reyes

Date: August 2019

Scope: Mandatory Requirements/All Products

Geographic Coverage: Philippines

The study looked into the non-tariff measures for all products. The following are the key findings:

- a) Exports of agricultural products have significantly higher number of non-tariff measures (NTMs) than other sectors. Animal products have the highest frequency index, which denotes stringent export requirements for meat and poultry products.
- b) The following were the issues identified by the study in relation to non-tariff measures:
  - For many agencies, the task of identifying, documenting, and monitoring NTMs is not a priority. Most initiatives to raise NTM awareness are from development assistance projects sponsored by the United Nations, for example, and the Economic Research Institute for ASEAN and East Asia (ERIA).
  - Most agencies do not have properly trained technical personnel who can effectively identify and document NTMs. It is common for agencies to have only temporarily assigned personnel who can work on NTM matters as the need arises. This contributes to inefficiency in implementing NTMs, which causes delays in the processing of imports and exports.
  - Agencies that regularly monitor their NTMs are familiar primarily with those related to trade licenses, permits, certificates, or authorisations.
  - Regulations not always available or accessible.

## 2. Philippines: Company Perspectives – An ITC Series on Non-Tariff Measures

Author: International Trade Centre

Date: 2017

Scope: Mandatory Requirements + partly VSS/Various Products

The International Trade Centre (ITC), in collaboration with the EMB-DTI implemented a survey from August 2014 to April 2016 in order to assess the Filipino business community's perspectives on NTMs. The aim of the survey was to provide a better understanding of the trade obstacles experienced by Filipino companies and to identify potential bottlenecks related to trade procedures and cross-border operations. Low-tech manufacturing sectors (wood, fabric, leather, etc.) comprised half (52%) of all exporters interviewed, while the agri-food sectors made up a third (28%) and medium-tech [mostly assembly; non-electric machinery, computer, etc.)] manufacturing sectors made up a fifth (20%) of interviewees.

The following are the key findings:

- a) Approximately 70% of all companies (exporters and importers) are confronted by obstacles to trade related to NTMs. The agri-food sectors are the most affected by NTMs-related obstacles, with 81% of exporters and 75% of importers of processed food and agro-based products signifying difficulties in dealing with regulations.
- b) Small and micro companies are the most affected among importers (71%), which is expected given their more limited capabilities in dealing with obstacles to trade. It was, however, surprising that among exporter, the large companies were the most affected at 67%.

- c) 77% of all Filipino exporters and 75% of importers doing business with China complained of NTMs-related obstacles, making it the most affected trading partner overall. The second most problematic market for exports is the United States, with 67% of Filipino exporters to the US citing obstacles. Japan has the lowest incidence of NTMs-related obstacles for exporters at 50%.
- d) Almost 60% of exporters' NTM-related obstacles come from product-specific measures: conformity assessments (29%) that include product certification and testing, and technical requirements (27%) that include fumigation and labelling.

| <b>Table 60. Principal categories of NTM-related trade obstacles for exporters</b> |  |          |                         |
|--|--|----------|-------------------------|
| <b>NTM Category</b>  | <b>Specific NTM</b>  | <b>%</b> | <b>Classification</b>   |
| Conformity Assessments   | Product certification  | 16%      | Technical Measures      |
|  | Testing  | 10%      |                         |
|  | Others (inspection, quarantine, traceability, registration)  | 3%       |                         |
| Technical Requirements   | Fumigation   | 13%      |                         |
|  | Labelling  | 9.5%     |                         |
|  | Registration due to food borne risks, diseases, and pests  | 2%       |                         |
|  | Others (tolerance limits, production procedures, prohibitions)   | 2.5%     |                         |
| Rules of origin  | Rules of origin and related certificate  | 11%      | Non-technical measures  |
| Other import measures  | Pre-shipment inspection and other formalities, consular invoice fee, tariff rate quotas, prohibitions and others | 2%       |                         |
| Other export measures  | Export clearance procedure, cargo logistics clearance, etc   | 11%      | Export related measures |
| Export technical measures  | Certification required by exporting country  | 3%       |                         |
|  | Others [export technical measures unique to specific government agencies]  | 5%       |                         |
| Export quantity control  | Licensing or permit to export  | 3%       |                         |
|  | Registration and others  | 2%       |                         |
| Private standards  | Product certification  | 5%       | Private standards       |
|  | Other private requirements   | 2%       |                         |

Although labelling and/or packaging requirements are oftentimes provided or subsidized by buyers, small enterprises especially in the agri-food sector found this to be difficult to comply with.

Almost 24% of issues are related to domestic export-related such as other export measures particularly export clearance procedures (11%), export technical measures (8%), and export quantity control (5%).

Rules of origin come out as the only non-technical measure with the biggest share (11%), while private standards round out the biggest obstacles to trade with 7% of issues.

Most exporters do not appear to differentiate between private standards (recorded as 7% of obstacles) or NTMs in their depiction of trade obstacles.

- e) Partner countries' regulations cause 63% of all NTMs for agri-food sectors. Conformity assessments and rules of origin (ROO) are slightly more prevalent in manufacturing than in agri-food sectors. Export-related measures are slightly more prevalent in agri-foods sectors (28%) than in manufacturing sectors (22%). This is likely due to the high number of SPS regulations imposed by public health regulating agencies on agriculture-related exports.
- f) Main difficulties cited by agri-food exporters were the following:
  - Lack of local testing facilities and product certification available in the Philippines, requiring them to ship their goods to accredited testing companies abroad.
  - Halal certification, Customs procedures and requirements, FDA accreditation and export clearance, and health certification under BFAR are highly bureaucratic and subject to frequent delays (from 3 months to a year).
  - Exporters in the regions such as Cebu or Davao cited additional layers of administrative red tape for regulating agencies based in Manila such as FDA and BFAR when services in the provinces are not adequate.
  - Translation of documents to European or East Asian languages, and the need to notarize documents at Middle Eastern embassies.
- g) United States and the EU are responsible for a cumulative 40% of NTM obstacles. Difficulties in the US markets include requirements for certificate of origin, and HACCP certification requirements. EU has very high standards on testing and certification requirements for especially agri-food products.
- h) The vast majority of NTMs applied by both partner countries and the Philippine government are perceived to be caused by procedural obstacles (POs) or a combination of an official NTM and POs. This implies that difficulty is in the implementation of the NTMs rather than the regulation itself. POs were most dominant in export related measures imposed by the Philippine government domestically.

The following are the POs for products relevant to this ILO study:

*Fruits and related products:* (FDA) requires registration payments of PHP 1,000 for every variant of exported products on a per shipment basis. This is cumbersome for exporters that ship many variants in one container, and encourages them to declare wrongly their shipments, especially if shipment sizes are small and the company is not big. Many exporters complain of frequent delays in FDA processing of CPR and LTO, with some claiming they have been waiting for two years or



more. Likewise, the FDA Cebu office does not know the status of LTO applications/renewals, and exporters have to always contact the office in Manila.

Some Muslim markets only honour international HALAL accreditors and this is compounded by the lack of mutual recognition between local and international Halal certifiers., IDCP (Islamic Da'wah Council of the Philippines) -certified Halal ingredients are not recognized by HDIP (Halal Development Institute of the Philippines). This costs some exporters about 3 months of delay and PHP 10,000 per product per year.

*Coconut Oil/Virgin Coconut Oil:* Coconut oil exporters complain that some United States clients require a certificate stating that products are 100% organic, which is very expensive at an annual fee of PHP 500,000. Many of the enterprises cannot afford the certification fee.

Export of coconut products requires a certificate of registration from the Philippine Coconut Authority (PCA), which involves testing, inspections and documents processing, and can be quite tedious and costly especially for firms based outside Manila.

Seafood: Release of health certificate from BFAR is often delayed. Companies cite the lack of available personnel in BFAR offices in the Zamboanga and General Santos area in the Southern Philippines, where most fisheries companies are located.

Annual inspection for BFAR accreditation, which may sometimes be required by buyers in importing countries, can take six months to a year to schedule. BFAR asks for receipted 'transportation allowance' fees when issuing export permits for seafood products. In terms of testing, one cited issue is that DNA level microbial testing is not available locally, so some exported products might pass testing standards in the Philippines but are rejected when tested with more sensitive equipment in other countries.

- i) Private standards also receive very high rates of difficulties with POs (82%). This may be attributed to testing and certification requirements which can be subject to numerous POs such as the lack of available testing facilities or prohibitive cost of certification.
- j) Below is the summary matrix of obstacles and recommendations made by participants during the presentation workshop/roundtable discussion.

| <b>Table 63. Summary Matrix of Obstacles and Preliminary Recommendations</b>   |   |  |   |
|--|---|--|---|
| <b>Type of Burdensome NTM</b>  | <b>Obstacles</b>  | <b>Products, agencies, and markets affected</b>                    | <b>Recommendations/ Policy Options</b>                  |
| <b>Product requirements and conformity (exports): Technical compliance and expense</b><br>How to improve the conformity of exported products?<br>How to overcome the lack of recognition of Filipino's certificates in international markets? How to make local conformity assessment procedures more efficient and less expensive? How to ensure businesses have better access to product standards and conformity assessment procedures? |   |  |   |
| Conformity assessments (product certification and  | High costs and delays for testing and certification requirements for both agri- | Cross cutting, concern all products, usually for US and EU markets | Technical assistance and information campaign, capacity |

| <b>Table 63. Summary Matrix of Obstacles and Preliminary Recommendations</b>  |   |   |  |
|---|---|---|--|
| <b>Type of Burdensome NTM</b>   | <b>Obstacles</b>  | <b>Products, agencies, and markets affected</b>                       | <b>Recommendations/ Policy Options</b>   |
| testing) by partner countries, private standards and regulating agencies  | food (SPS) and manufacturing (TBTs)   |   | upgrading and shared service facilities for especially MSME exporters to comply with testing and certification requirements (e.g. HACCP), fumigation and labelling/ translation                      |
| Technical requirements (fumigation and labelling) by partner countries  | Lack of staff and facilities in FDA and BFAR regional offices to facilitate permits                         | Agri-food – FDA, BFAR, BPI, DT  | Mapping availability of testing, fumigation and labelling services and benchmarking of costs across countries  |
|   | Fumigation as a necessary and expensive requirement for all cargo shipments                                 | Manufacturing – BPS, DOST, DTI  | Get international accreditation for DOST's Electronics Product Development Center (EPDC)   |
|   | Labelling and related packaging requirements difficult for agri-food exporters                              | Agri-food – FDA, BFAR, BPI, DTI<br><br>Manufacturing – BPS, DOST, DTI | Finalize negotiations for Mutual Recognition Agreements in key sectors (food, cosmetics, and pharmaceuticals in ASEAN), and move forward on the harmonization of labelling requirements within ASEAN |
| Private standards certifications  | Client insistence for private standards certification becoming a “requirement” in addition to official NTMs |   | More focus on providing adequate facilities and technical staff in government testing and certification offices in key regional export zones such as in Cebu or Davao.                               |
| <b>Customs clearance and control (imports and exports): border transparency and clean up</b><br>How to improve the transparency of border inspection procedures? How to streamline border clearance and control procedures? |   |   |  |
| Import/export clearance   | BOC affected by the majority of domestic POs, including informal payments, delays, too much                 | Cross cutting, concern all products and markets                       | Effective and sustainable implementation of full customs automation,   |

| <b>Table 63. Summary Matrix of Obstacles and Preliminary Recommendations</b>   |   |  |   |
|--|---|--|---|
| <b>Type of Burdensome NTM</b>  | <b>Obstacles</b>  | <b>Products, agencies, and markets affected</b>    | <b>Recommendations/ Policy Options</b>  |
|  | paperwork and red tape for import and export clearance  |  | including improved port and road infrastructure to address congestion and logistics issues.   |
| Import monitoring mechanisms (e.g. BIR ICC and PNP/PDEA regulation on chemicals importation)   | The E2M electronization system is frequently offline and still requires manual interactions, leading to informal payments.<br><br>Port congestion and related logistics issues for cargo shipments including the new Terminal Advanced Booking System | BOC, BIR, PNP, PDEA                                | Inter-agency mechanism to properly review new agency regulations that affect trade, and provide avenues for stakeholders to be consulted prior to implementation. |
|  | BIR implementation of its new Importer Clearance Certificate requirements subject to frequent delays and too much paperwork and red tape  |  | Strengthen and support the Project Repeal for redundant trade procedures and the Interoperability Project for interconnected government agencies.                 |
| Customs valuation  | Customs valuation subject to improper assessments and lack of recognition for foreign valuations  | BIR  | Customs valuation subject to improper assessments and lack of recognition for foreign valuations  |
| <b>Rules of origin and other trade rules (exports and imports): overcoming domestic POs</b><br>What are the roles and responsibilities of each institution involved in issuing of trade documents (licenses, permits, certificates of origin)?<br>How to simplify the procedures for granting these documents?<br>How to improve transparency on regulations governing such procedures including the eligibility criteria for companies, costs and time? |   |  |   |
| Rules of origin (ROO) by partner countries   | Requirements for Certificates of Origin (COs) difficult to comply with, leading to informal payments or under-utilization of ROO privileges   | Manufacturing sectors – ROO and CO issues from BOC | BOC to improve implementation of CO-related procedures, including reduced use of third party customs brokers and an active blacklist of ineffective brokers.      |
| Technical authorization by   | NTM-regulating agencies (FDA, BFAR, BPI, DENR, PNP, PDEA, etc.) require   | Agri-food sectors – Technical authorization        | Simplification and expedition of export   |

| <b>Table 63. Summary Matrix of Obstacles and Preliminary Recommendations</b> |   |  |  |
|--|---|--|--|
| <b>Type of Burdensome NTM</b>  | <b>Obstacles</b>  | <b>Products, agencies, and markets affected</b>  | <b>Recommendations/ Policy Options</b>   |
| Philippine regulating agencies   | individual technical authorizations for export clearance that are subject to high charges, delays, paperwork and red tape, and lack technical staff or facilities | from FDA, BFAR, BPI, and DENR<br><br>Manufacturing sectors – DENR (furniture), PNP, PDEA (chemicals) | technical authorization procedures (e.g. issuance of export licences and permits) towards streamlining them and reducing redundancies.<br><br>Relevant agencies (FDA and BFAR) to increase staff and facilities of regional offices to facilitate permits. |

## 7 CONCLUSIONS

- The following are the significant products/subsectors for the Philippines in terms of participation in global value chains and in which VSS plays a moderate to strong role in sourcing decisions:
  - Virgin coconut oil
  - Coconut water
  - Tuna
- The following are the significant products/subsectors for Vietnam in terms of participation in global value chains and in which VSS plays a moderate to strong role in sourcing decisions:
  - Coffee
  - Shrimp
  - Pangasius
  - Tuna
- VSS and GSP+ as well as the new generation of EU FTAs use trade as a leverage to foster sustainable development. VSS focuses on the level of producers and production sites while GSP+ and EU FTAs work on the level of government policies and governance.
- The interaction between public and private standards/VSS is more advanced for food safety and quality vis-à-vis social and environmental standards. Generally, mandatory export requirements define the minimum requirements to be fulfilled and VSS establish the tools and processes to meet these requirements.
- Harmonization of mandatory export/import requirements among and between trading partners has the potential to make trade more efficient as exporters could comply with globally accepted standards instead of complying with different standards for each target market or buyer. Mandatory product standards do not create unnecessary barriers to trade if they are based on internationally agreed standards. Likewise, many of the constraints are rooted to inefficient procedures to comply with the requirements.
- Majority of the VSS use the core ILO international labour standards as the main reference for designating rights and working conditions when setting their standards. Likewise, most of the VSS refer to national law in their requirements relating to specific issues, including child labour, women's rights, minimum wages, and working conditions. To some extent, compliance is contextual and depends on the comprehensiveness of national laws.

Labour standards, however, appear to be the least studied in relation to impact of VSS. It may be necessary for ILO to provide guidance on how to assess labour outcomes and impact in relation to VSS adoption.

- There is a paucity of studies on the effective demand for labour specific VSS among lead firms and retailers in supply chains of shortlisted commodities covered in this study. Based on literature review

conducted by the team, it is difficult to make conclusions as to the “market demand” for labour specific VSS.

- The available studies suggest that VSS can be beneficial, but context matters. Effectiveness and importance of VSS in sourcing decisions depend on business models that are product and context specific. Certification works for enterprises that are already reasonably well-managed, have access to resources, have access to markets that are able to better value their products, and operate in fairly well-functioning local governance structures. Moreover, a lack of institutional and technical capability to enable accessible certification can present significant challenges to enterprises in demonstrating their compliance with the VSS.
- Certification is only commercially viable if benefits to enterprises are tangible. Agro-ecological and labour standards will only be implemented and maintained if they improve productivity, or if there is a price premium large enough to cover the costs. Unfortunately, most VSS do not offer premium price. As such, benefits have to be mainly in terms of improved productivity, cost efficiency, product quality improvement, and access to bigger and more lucrative markets.
- For most products included in the study, the supply of certified products is so much larger than the demand. This suggests the need for VSS promotion has to be supported with market development and better provision of information to consumers both through the schemes and about the schemes. This also implies the need to work closely with lead firms and to take a value chain approach in VSS promotion.
- VSS certification contributes to the upgrading of capabilities of producers. However, achieving certification can be a costly process as it does not only involve paying for certification, but more importantly, the cost of the process changes required to meet the requirements. Resource poor vulnerable producers are able to comply with VSS only with substantial external help. This has significant development implications, as those in greatest need of the increased incomes offered by inclusion in export oriented chains are the most likely to be squeezed out of the market by the effects of the voluntary sustainability standards.
- Economies of scale can reduce the compliance costs by spreading the economic burden among a number of farmers or fishers, or by facilitating processes of consolidation and concentration. This suggests the need for horizontal collaboration and the formation of groups as prerequisites to certification among small enterprises.
- The multiplicity of VSS can be a source of additional costs and barriers to trade. It calls for greater coordination, including mutual recognition. To date, most of mutual recognition agreements are among and between developed countries.
- The trend toward multiple certifications is primarily because it is easier to certify those that have already been certified than to certify those who have never before met the requirements of a similar standard. Many of the more difficult requirements, such as record keeping, traceability and good agricultural practices, are commonly shared among the different certifications. Producers who have multiple certifications face higher costs but are likely to improve their opportunities to access diverse markets and satisfy different buyers/market segments.

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## MOST DEMANDED VSS FOR COFFEE, CACAO and COCONUTS (69 standards in ITC website)







| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |   |  |   |   |   |   |
|---|---|--|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| ENVIRONMENT   | 80/145  | 82/145   | 82/145  | 108/145   | 90/145  | 123/145   |
| SOIL  | 6/13  | 0/13   | 9/13  | 11/13   | 1/13  | 11/13   |
| Soil: general principle   | ✓ < 3 Yr. Minor   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Soil erosion  | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Soil conservation   | ✗   | ✗  | ✓ Immediate   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Soil quality  | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |   |  |   |   |   |   |
|---|---|--|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Soil nutrients  | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Soil productivity   | ✗   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ Recommendation Optional   |
| Soil biodiversity   | ✗   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Soil contamination  | ✗   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Soil preparation for specific crops   | ✗   | ✗  | ✓ Immediate   | ✗   | ✓ Immediate Major   | ✗   |
| Soil maintenance  | ✓ < 3 Yr. Minor   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Soil enhancement by use of cover crops  | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Soil compaction   | ✗   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✗   | ✓ < 5 Yr. Minor   |
| Other criteria relating to soil   | ✗   | ✗  | ✓ Immediate   | ✗   | ✗   | ✗   |
| <b>FOREST</b>   | <b>5/8</b>  | <b>0/8</b>   | <b>5/8</b>  | <b>7/8</b>  | <b>0/8</b>  | <b>7/8</b>  |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Forestry: general principle   | ✓ Immediate Major   | ✗  | ✓ Recommendation  | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Reforestation   | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Deforestation prevention/remediation  | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Forest conservation   | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Forest conversion into production lands   | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Forest maintenance records of forested areas for 5-years period   | ✗   | ✗  | ✗   | ✗   | ✗   | ✓ < 3 Yr. Minor   |
| Forest management plan (FMP): baseline objectives and assessment of current conditions (stockings, species, age classes of trees etc) | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Other criteria relating to forestry cons  | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ Immediate Deal-breaker  |
| <b>INPUTS</b>   | <b>18/32</b>  | <b>2/32</b>  | <b>20/32</b>  | <b>29/32</b>  | <b>22/32</b>  | <b>23/32</b>  |
| Chemicals / Natural organic inputs: general principle   | ✓ < 3 Yr. Minor   | ✗  | ✓ Recommendation  | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Chemicals or substances prohibition                              | ✓ Immediate Major   | ✗  | ✗   | ✗   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   |
| List of prohibited chemicals                                     | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Deal-breaker  | ✓ Immediate Major   |
| Respect of list of authorized chemicals                          | ✓ < 3 Yr. Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Hazardous Chemicals – REACH                                      | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Respect list of prohibited chemicals harmful to human health     | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ Immediate Major   |
| Restrictions on surfactants, cleaning agents and foam inhibitors | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✗   |
| Appropriated tests of “toxicity”                                 | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Integrated Pest Management IPM / ICM                             | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Training on Integrated Pest Management (IPM)                     | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Chemicals and related materials: general principle   | ✓ < 3 Yr. Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Agrochemicals (fertilizers, pesticides, soil fumigants...)                                       | ✓ < 3 Yr. Major   | ✗  | ✓ < 3 Yr. Minor   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  | ✓ < 3 Yr. Major   |
| Chemicals storage and labelling  | ✓ < 3 Yr. Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Major   |
| Chemicals equipment and containers storage & cleaning  | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Protection of non-target areas from agro-chemical use  | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Major   |
| Regular re-calibration of agro-chemicals application equipment                                   | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Production / process chemicals (extractive industries, cleaning, food & non-food manufacturing ) | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| <b>ORGANIC NATURAL INPUTS: general principle</b>   | ✓ < 3 Yr. Minor   | ✗  | ✓ Recommendation  | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Use of organic fertilizer  | ✓ < 3 Yr. Minor   | ✗  | ✓ Recommendation  | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Equipment / training  | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ < 3 Yr. Minor   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Chemicals variation to prevent pest resistance                | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Chemicals: selective & targeted application                   | ✓ < 1 Yr.   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Training on chemicals handling and exposure                   | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Chemical substances storage/disposal/waste/labelling          | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Treatment of waste of chemical substances                     | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Criteria related to use and management of hazardous chemicals | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Criteria related to biodegradability of chemicals             | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| GMOs / genetically modified varieties prohibition             | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| GMOs / genetically modified varieties management & monitoring | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Deal-breaker  | ✓ Immediate Major   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| GMOs / genetically modified varieties risk prevention                     | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✓ Immediate Deal-breaker  | ✓ Immediate Major   |
| Genetically modified crops and products traceability and labelling        | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✗   |
| Other   | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✗   |
| <b>BIODIVERSITY</b>   | <b>20/33</b>  | <b>0/33</b>  | <b>23/33</b>  | <b>29/33</b>  | <b>20/33</b>  | <b>27/33</b>  |
| <b>BIODIVERSITY: general principle</b>                                    | ✓ Immediate Major   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Criteria to ensure adherence to international conventions on biodiversity | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Sustainable management and use of natural resources                       | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Habitat/eco-system restoration/ rehabilitation                            | ✓ < 5 Yr. Minor   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Impact assessment policy for new production                               | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✗   | ✗   | ✓ Immediate Major   |
| Protection of rare and threatened species and their habitats              | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |









## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Impact assessment for ongoing production / harvesting                         | ✗   | ✗  | ✓ < 3 Yr.   | ✗   | ✗   | ✓ Immediate Major   |
| Requirements for net positive gain in biodiversity                            | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Requirements for no net loss in biodiversity                                  | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| <b>WILDLIFE: general principle</b>  | ✓ < 3 Yr. Minor   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Use of wildlife species and resources   | ✓ < 1 Yr. Major   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  |
| Specific criteria relating to rare, threatened or endangered wildlife species | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Housing of wildlife living specimens  | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Impacts on wildlife populations   | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Protecting biodiversity zones via set asides                                  | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Ecological niches / corridors   | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points




































| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Criteria related to maintaining or protecting rare, threatened or endangered ecosystems   | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Criteria to avoid crop disease cross-contamination  | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Use of local seeds  | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Native species protection against invasive alien species  | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Protection of ecosystems against invasive species   | ✓ < 3 Yr. Minor   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| High Conservation Value Areas   | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Deal-breaker  |
| Prohibition of production on land with High Conservation Value (HCV) with conversion cut-off date no later than 2009 or at least five years history | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ Immediate Deal-breaker  |
| Criteria related to HCV as intended in the HCV Resource Network   | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Prohibition of production on land with High Conservation Area recognized by independent expertise   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Deal-breaker  |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |   |  |   |   |   |   |
|---|---|--|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Legally protected and internationally recognized areas for their biodiversity                 | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ Immediate Major   |
| Risks and impacts on ecosystem services   | ✗   | ✗  | ✓ < 1 Yr.   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   |
| Biotechnology use   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Deal-breaker  | ✗   |
| Clearing of land with fire/explosives   | ✗   | ✗  | ✓ < 1 Yr.   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   |
| Post-production practices (impact assessment - rotation of crops)                             | ✓ < 3 Yr. Minor   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ < 3 Yr.   |
| Human settlements in or close to production areas   | ✓ < 1 Yr. Major   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Criteria related to natural wetlands and/or watercourses affected by production               | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Criteria related to sustainable harvesting  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| <b>LIVESTOCK</b>  | <b>0/7</b>  | <b>0/7</b>   | <b>0/7</b>  | <b>0/7</b>  | <b>28/7</b>   | <b>19/7</b>   |
| <b>ANIMALS - LIVESTOCK: general principle</b>   | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS                                       | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Breeding   | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   |
| Feeding  | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   |
| Animal feed responsible sourcing policy            | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   |
| Specific criteria on origin of animal feed         | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   |
| Special criteria on quality of animal feed         | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   |
| Special requirements for organic animal feed       | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✗   |
| Criteria related to animals medication             | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Procedures to prevent the spread of animal disease | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| General criteria related to animals welfare        | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Criteria related to transport of animals           | ✗   | ✗  | ✗   | ✗   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |   |   |   |   |  |
|---|---|---|---|---|---|--|
|   | FLO<br>SME  | ILO   | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA   |
|   |    |     |    |    |  |   |
| Criteria related to slaughter (slaughtering process; minimum age& ) |    |    |    |    | ✓ Immediate Major   |   |
| Criteria related to the use of electric prods with livestock        | ✓ Immediate Major   | ✓ < 3 Yr. Minor   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   | ✓ Immediate Major   | ✓ < 3 Yr. Minor  |
| Techniques to be used for animal identification and/or castration   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   | ✓ Immediate Major   | ✓ < 3 Yr. Minor  |
| Animals' physical integrity   |    |    |    |    | ✓ Immediate Major   | ✓ < 3 Yr. Minor  |
| Litter / manure   |    |    |    |    | ✓ Immediate Major   | ✓ < 3 Yr. Minor  |
| Stock density (livestock)   |   |   |   |   | ✓ Immediate Major   |  |
| Outdoor access (livestock)  |  |  |  |  | ✓ Immediate Major   | ✓ Immediate Major  |
| Animal housing  |  |  |  |  | ✓ Immediate Major   | ✓ < 3 Yr. Minor  |
| Other criteria relating to animals treatment                        |  |  | ✓ Immediate   |  | ✓ Immediate Deal-breaker  | ✓ Immediate Major  |
| <b>WASTE</b>  | 11/21   | 0/21  | 11/21   | 15/21   | 10/21   | 17/21  |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| <b>WASTE MANAGEMENT: general principle</b>                 | ✓ < 1 Yr. Major   | ✗  | ✓<br>Recommendation   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Treatment and use of solid waste                           | ✓ < 3 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Monitoring and measuring solid waste volumes               | ✗   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✗   | ✓ < 3 Yr. Minor   |
| Rating to reducing solid waste volumes                     | ✗   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Monitoring and measuring waste toxicity                    | ✓ < 3 Yr. Minor   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Solid waste reduction / re-use / recycle                   | ✓ < 3 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Non-solid waste  | ✓ < 5 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Criteria related to waste segregation                      | ✗   | ✗  | ✓<br>Recommendation   | ✓ < 3 Yr. Major   | ✗   | ✓ < 3 Yr. Minor   |
| Run-off of waste chemicals, mineral and organic substances | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Air pollution  | ✗   | ✗  | ✓<br>Recommendation   | ✗   | ✓ Immediate   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Pollution incidents mitigation: procedures for risks monitoring and records keeping | ✓ < 5 Yr. Minor   | ✗  | ✓<br>Recommendation   | ✓ < 3 Yr. Major   | ✗   | ✓ Immediate Major   |
| Noise, odour and other pollution nuisance   | ✗   | ✗  | ✗   | ✗   |   | ✗   |
| Composting  | ✓ < 3 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ < 3 Yr. Major   | ✓<br>Recommendation<br>Optional   | ✓ < 5 Yr. Minor   |
| Waste packaging   | ✗   | ✗  | ✗   | ✗   | ✓ Immediate   | ✗   |
| Waste disposal (incl. solid waste, non-solid waste, hazardous waste)                | ✓ < 3 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Disposal of hazardous waste   | ✓ < 3 Yr. Minor   | ✗  | ✓<br>Recommendation   | ✓ < 3 Yr. Major   | ✗   | ✓ < 3 Yr. Minor   |
| Handling / disposal of waste by third parties                                       | ✗   | ✗  | ✗   | ✗   | ✗   | ✓ < 3 Yr. Minor   |
| Other criteria relating to waste management   | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Waste elimination through the use of fire   | ✓ < 3 Yr. Minor   | ✗  | ✗   | ✗   | ✗   | ✓ < 5 Yr. Minor   |
| Avoidance of uncontrolled waste landfilling   | ✗   | ✗  | ✗   | ✗   | ✗   | ✓ < 3 Yr. Minor   |
| Environmentally friendly purchasing policy (building materials and consumables)     | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| <b>WATER</b>  | <b>10/14</b>  | <b>0/14</b>  | <b>9/14</b>   | <b>13/14</b>  | <b>6/14</b>   | <b>10/14</b>  |
| <b>WATER USE &amp; MANAGEMENT: general principle</b>  | ✓ < 3 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Water management plan                                 | ✓ < 3 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Water dependencies                                    | ✓ < 3 Yr. Minor   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✗   | ✗   |
| Water use, reducing, including reuse and recycling    | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Wastewater management / treatment                     | ✓ < 5 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Criteria relating to limitations of wastewater volume | ✗   | ✗  | ✓ < 3 Yr.   | ✗   | ✗   | ✓ < 5 Yr. Minor   |
| Water contamination / pollution                       | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Transboundary effects of water pollution              | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Water quality   | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |









## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Water disposal / storage   | ✓ < 5 Yr. Minor   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Monitoring of water usage  | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Natural wetlands are maintained in undrained conditions.           | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Water usage records keeping  | ✓ < 3 Yr. Minor   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Other criteria relating to water                                   | ✓ < 5 Yr. Minor   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| <b>ENERGY</b>  | <b>4/7</b>  | <b>0/7</b>   | <b>4/7</b>  | <b>5/7</b>  | <b>3/7</b>  | <b>4/7</b>  |
| <b>ENERGY USE &amp; MANAGEMENT: general principle</b>              | ✓ < 3 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Application of a 'clean production principles'                     | ✗   | ✗  | ✗   | ✗   | ✗   | ✓ < 5 Yr. Minor   |
| Reduce use of energy resources                                     | ✓ < 3 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Criteria related to storage of energy (incl. fuel, electricity & ) | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Use of alternative energies including solar, wind, etc   | ✓ < 5 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Recommendation Optional   | ✗   |
| Use of wood-based energy   | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Use of non-renewable energies: General Principle   | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| <b>CLIMATE-CARBON</b>  | <b>6/7</b>  | <b>0/7</b>   | <b>1/7</b>  | <b>2/7</b>  | <b>0/7</b>  | <b>5/7</b>  |
| <b>CARBON POLICIES: general principle</b>  | ✓ < 5 Yr. Minor   | ✗  | ✗   | ✗   | ✗   | ✓ < 5 Yr. Minor   |
| GHG carbon emissions monitoring  | ✓ < 5 Yr. Minor   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Monitoring/reducing non-carbon   | ✓ < 5 Yr. Minor   | ✗  | ✗   | ✗   | ✗   | ✓ < 5 Yr. Minor   |
| Sequestration of green-house gases: general principle  | ✓ < 5 Yr. Minor   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Soil or trees sequestration  | ✓ < 5 Yr. Minor   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 5 Yr. Minor   |
| Criteria related to the protection of high carbon landscapes / land with High Carbon Stock (HCS) | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 5 Yr. Minor   |
| Criteria relating to specific climate adaptation activities                                      | ✓ Recommendation  | ✗  | ✓ < 3 Yr.   | ✗   | ✗   | ✓ Immediate Major   |

















































## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| <b>SOCIAL</b>  | <b>56/135</b>   | <b>85/135</b>  | <b>92/135</b>   | <b>105/135</b>  | <b>50/135</b>   | <b>87/135</b>   |
| <b>Human Rights And Local Communities</b>                      | <b>13/33</b>  | <b>19/33</b>   | <b>15/33</b>  | <b>21/33</b>  | <b>8/33</b>   | <b>16/33</b>  |
| <b>HUMAN RIGHTS &amp; LOCAL COMMUNITIES: general principle</b> | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Basic human rights and local communities engagement            | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 5 Yr. Minor   |
| Practices endangering food security                            | ✗   | ✗  | ✗   | ✗   | ✗   | ✓ Immediate Major   |
| Practices promoting healthy / high nutritional value foods     | ✗   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Production practices that reduce food and feed                 | ✗   | ✗  | ✓ < 3 Yr.   | ✗   | ✗   | ✗   |
| Promotion/enhancement of education                             | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Recommendation Optional   | ✓ < 3 Yr. Minor   |
| Promotion/enhancement of medical care services                 | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Recommendation Optional   | ✓ < 3 Yr. Minor   |
| Promotion/enhancement of housing and sanitary facilities       | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ < 1 Yr.   | ✓ Immediate Deal-breaker  | ✓ Recommendation Optional   | ✓ Immediate Major   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Rights of indigenous peoples (ILO 169)                                     | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate   | ✗   | ✗   |
| Minority rights  | ✓ < 3 Yr.   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Recommendation Optional   | ✓ Immediate Major   |
| Protection of minority rights and marginalized groups                      | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Recommendation Optional   |
| Social culture and sites   | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 5 Yr. Minor   |
| Historical, cultural and archaeological artefacts trade                    | ✗   | ✓ < 1 Yr.  | ✗   | ✗   | ✗   | ✗   |
| Internationally recognized / legally protected sites and cultural heritage | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Community access to cultural heritage                                      | ✗   | ✓ < 1 Yr.  | ✗   | ✗   | ✗   | ✗   |
| Access to historical, cultural, archaeological and spiritually sites       | ✗   | ✓ < 1 Yr.  | ✗   | ✗   | ✗   | ✗   |
| Services and benefits to local communities                                 | ✓ < 1 Yr.   | ✗  | ✓ < 3 Yr.   | ✗   | ✓ Recommendation Optional   | ✓ Recommendation Minor  |
| Engagement & consultation with local communities                           | ✓ < 1 Yr. Major   | ✓ < 1 Yr.  | ✗   | ✗   | ✗   | ✓ < 5 Yr. Minor   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS   | KEY STANDARDS   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  | FLO<br>SME  | ILO   | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |    |     |    |    |    |    |
| Land title and use rights  |    | ✓ < 1 Yr.   | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ Immediate Major   |
| Supporting local communities economic devel                                  | ✓ Immediate Major   |    |    | ✓ < 3 Yr.   | ✓ Recommendation Optional   |    |
| Hiring workers from local communities  |    | ✓ < 1 Yr.   |    |    |    |    |
| Purchasing local materials, goods, products and services                     |    |    | ✓ < 3 Yr.   |    |    |    |
| Traditional and cultural production practices                                |    | ✓ < 1 Yr.   |    |    |    |    |
| Grievance mechanisms for communities   |    |    | ✓ Immediate   | ✓ Immediate Deal-breaker  |    | ✓ < 5 Yr. Minor   |
| Involuntary resettlement, physical displacement and/or economic displacement | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.   |  | ✓ Immediate Deal-breaker  |  |  |
| Compensation and benefits for displaced persons                              | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.   | ✓ Immediate   | ✓ Immediate Deal-breaker  |  |  |
| Compensation and benefits for displaced persons                              |  |  |  |  |  |  |
| Planning / implementation of resettlement activities                         |  |  |  | ✓ Immediate Deal-breaker  |  |  |
| Livelihood restoration for displaced persons                                 |  | ✓ < 1 Yr.   |  | ✓ Immediate   |  |  |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |   |  |   |   |   |   |
|---|---|--|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
|   |   |  |   | Deal-breaker  |   |   |
| Investments and associated possible impacts on land-users                                     | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Free, prior and informed consent of local communities   | ✗   | ✓ < 1 Yr.  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Producers are required to identify customary rights of tenure                                 | ✗   | ✗  | ✗   | ✗   | ✗   | ✓ Immediate Major   |
| Local communities access to livelihoods   | ✗   | ✓ < 1 Yr.  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| <b>Labor Practices - Conditions Of Work and Social Protection</b>                             | <b>19/30</b>  | <b>18/30</b>   | <b>25/30</b>  | <b>28/30</b>  | <b>9/30</b>   | <b>21/30</b>  |
| <b>CONDITIONS OF WORK: general principle</b>  | ✓ < 5 Yr. Minor   | ✓ < 1 Yr.  | ✓ Recommendation  | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Sexual exploitation / harassment  | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Deal-breaker  |
| Safety at work (ILO 184)  | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Safety at work - legal compliance   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points


































| REQUIREMENTS                                       | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Electrical equipments safety                       | ✗   | ✓ < 1 Yr.  | ✓ < 1 Yr.   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Verification and maintenance of buildings safety   | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Fire preparedness (drills, equipment, signs)       | ✗   | ✓ < 1 Yr.  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Emergency exits and evacuation procedures          | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Publicly available evacuation procedures           | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Regular and scheduled emergency exit maintenance   | ✗   | ✗  | ✓ < 1 Yr.   | ✗   | ✗   | ✗   |
| Training on safety issues                          | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Occupational health and safety, as defined in IL   | ✗   | ✓ < 1 Yr.  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Workplace safety                                   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Safety equipment and personal protective equipment | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Machinery / equipment safety                             | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Emergency first aid kits                                 | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Safety procedures for handling chemicals                 | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Monitoring of accidents records                          | ✗   | ✓ < 1 Yr.  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Training of workers on procedures to deal with accidents | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Healthy work conditions                                  | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Workers' access to safe drinking water                   | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ Immediate Major   |
| Workers' access to decent sanitary facilities etc.)      | ✓ Immediate Major   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Workplace conditions (air quality, lighting, noise )     | ✓ Immediate Major   | ✓ < 1 Yr.  | ✗   | ✓ < 3 Yr. Major   | ✗   | ✓ Immediate Major   |
| Dormitories and canteens                                 | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ Immediate Major   |































## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS  | KEY STANDARDS   |   |   |   |   |  |
|---|---|---|---|---|---|--|
|   | FLO<br>SME  | ILO   | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA   |
|   |    |     |    |    |    |   |
| Workers' entitlement to breaks (e.g. meal breaks)                         |    | ✓ < 1 Yr.   | ✓ Immediate   | ✓ < 3 Yr. Major   |    | ✓ Immediate Major  |
| Infirmary at production site  | ✓ Immediate Major   |    | ✓ Immediate   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor  |
| Prohibition of physical violence, intimidation                            | ✓ Immediate Major   |    | ✓ Immediate   | ✓ < 3 Yr. Major   |    | ✓ Immediate Deal-breaker   |
| Criteria for keeping records of disciplinary measures                     |    |    |    |    | ✓ Immediate Major   |   |
| Worst forms of child labor (ILO 182)                                      | ✓ Immediate Major   | ✓ < 1 Yr.   | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ Immediate Deal-breaker   |
| Other criteria relating to conditions of work                             |   |   |   | ✓ Immediate Major   |   |  |
| <b>Labor Practices - Employment and Employment Relationships</b>          | <b>24/46</b>  | <b>36/46</b>  | <b>32/46</b>  | <b>41/46</b>  | <b>19/46</b>  | <b>35/46</b>   |
| <b>CONDITIONS OF EMPLOYMENT: general principle</b>                        | ✓ Immediate Major   | ✓ < 1 Yr.   | ✓ Immediate   | ✓ Immediate Deal-breaker  |  | ✓ Immediate Major  |
| Waivers/national exemptions to maximum working hours                      |  | ✓ < 1 Yr.   |  | ✓ Immediate Major   |  | ✓ Immediate Major  |
| Workers' compensation for medical costs in case of work related accidents |  |  | ✓ Immediate   |  |  | ✓ < 3 Yr. Minor  |
| Access to medical insurance   |  | ✓ < 1 Yr.   |  |  |  | ✓ < 3 Yr.  |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points




















| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| <b>HUMAN RESOURCES MANAGEMENT: general principle</b>                  | ✓ Immediate Major   | ✓ < 1 Yr.  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Employment / hiring practices - legal compliance                      | ✓ Immediate Major   | ✓ Recommendation   | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Workforce reduction policies and practices - legal compliance         | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✗   |
| Payroll records and pay slips   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Workers equipment costs (incl. uniforms)                              | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✗   |
| <b>LEAVE DAYS: general policy (public holidays, annual leave...)</b>  | ✗   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| 1 rest day off in 7-days period or more stringent policy              | ✗   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Special leave (sickness, marriage, family leave& )                    | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Pensions and social security benefits                                 | ✓ < 5 Yr. Minor   | ✓ < 1 Yr.  | ✗   | ✗   | ✓ Immediate Major   | ✗   |
| Waivers/national exemptions to full scope coverage of social benefits | ✗   | ✓ < 1 Yr.  | ✗   | ✓ Immediate Major   | ✗   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS   | KEY STANDARDS   |   |   |   |   |   |
|--|---|---|---|---|---|---|
|  | FLO<br>SME  | ILO   | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |    |   |    |  |    |  |
| Transportation of workers to production site           |    |  |    |  | ✓<br>Recommendation<br>Optional   |  |
| Child labor and minimum age (ILO 138)                  | ✓ Immediate<br>Major  | ✓ < 1 Yr.   | ✓ Immediate   | ✓ Immediate<br>Major  | ✓ Immediate<br>Major  | ✓ Immediate<br>Deal-breaker   |
| Child labour legal compliance policy                   | ✓ Immediate<br>Major  | ✓ < 1 Yr.   | ✓ Immediate   | ✓ Immediate<br>Deal-breaker   |    | ✓ < 3 Yr. Minor   |
| Maintenance of age records of workers                  | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.   | ✓ Immediate   |  |    |  |
| Child labour remediation policy                        | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.   | ✓ Immediate   | ✓ Immediate<br>Deal-breaker   |    | ✓ Immediate<br>Major  |
| Hiring and employing young workers                     | ✓ Immediate<br>Major  | ✓ < 1 Yr.   | ✓ Immediate   | ✓ Immediate<br>Deal-breaker   |   | ✓ Immediate<br>Major  |
| Good conditions of work for young workers              |  | ✓ < 1 Yr.   |  | ✓ Immediate<br>Deal-breaker   |  | ✓ Immediate<br>Major  |
| Young workers working hours                            |  | ✓ < 1 Yr.   |  | ✓ Immediate<br>Deal-breaker   |  | ✓ Immediate<br>Major  |
| Training programs for young workers                    |  | ✓ < 1 Yr.   |  | ✓ Immediate<br>Major  |  | ✓ < 3 Yr. Minor   |
| Young workers access to effective grievance mechanisms |  | ✓ < 1 Yr.   |  | ✓ Immediate<br>Major  |  | ✓ Immediate<br>Major  |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |   |  |   |   |   |   |
|---|---|--|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Young workers trained on Occupational Health and Safety                                       | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Equal remuneration (ILO 100)  | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Deal-breaker  |
| Maximum working hours   | ✗   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Hours of work and overtime monitoring   | ✗   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Other criteria relating to the conditions of employment                                       | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Part-time / contract workers' rights  | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  |
| Subcontracted workers' rights   | ✗   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  |
| <b>WORK AND LABOR RIGHTS: general principle</b>   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Recommendation  | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Voluntary employment - No forced labor (ILO 29 & 105)   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ Immediate Deal-breaker  |
| Right to refuse overtime  | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |    |  International<br>Labour<br>Organization |  Better farming<br>Better future |  |    |    |
| Overtime compensation required/specified                      |    | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate<br>Major  | ✓ Immediate<br>Major  | ✓ Immediate<br>Major  |
| Use of prison labor   | ✓ Immediate<br>Major  | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate<br>Deal-breaker   |    | ✓ Immediate<br>Deal-breaker   |
| Template/format for terms of labour contracts                 | ✓ < 3 Yr. Minor   |   | ✓ Immediate   | ✓ Immediate<br>Major  | ✓ Immediate<br>Major  | ✓ < 3 Yr. Minor   |
| Migrant workers' employment and contract management           |    | ✓ < 1 Yr.  |                                  | ✓ Immediate<br>Deal-breaker   |    | ✓ Immediate<br>Major  |
| Illegal/excessive deductions or fees (incl. Recruitment fees) | ✓ Immediate<br>Major  | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate<br>Deal-breaker   |    | ✓ Immediate<br>Deal-breaker   |
| Retention of workers' documentation (ID, passport)            | ✓ Immediate<br>Major  | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate<br>Deal-breaker   | ✓ Immediate<br>Major  | ✓ Immediate<br>Deal-breaker   |
| Use of contracts in written form                              | ✓ < 3 Yr. Minor   |                                       | ✓ Immediate   | ✓ Immediate<br>Major  | ✓ Immediate<br>Major  | ✓ < 3 Yr. Minor   |
| Workers mobility and freedom of movement                      |  |                                       | ✓ Immediate   | ✓ Immediate<br>Deal-breaker   |  |  |
| Timely payment of wages                                       | ✓ Immediate<br>Major  | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate<br>Major  |  | ✓ < 3 Yr. Minor   |
| Minimum Wage  | ✓ Immediate<br>Major  | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate<br>Major  | ✓ Immediate<br>Major  | ✓ Immediate<br>Major  |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Living Wage   | ✗   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Policies and procedures to address workers' grievances                                    | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| <b>Labor Practices - Human Development and Social Dialogue</b>                            | <b>18/26</b>  | <b>12/26</b>   | <b>20/26</b>  | <b>23/26</b>  | <b>4/26</b>   | <b>15/26</b>  |
| Freedom of association (ILO 87)   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✓ < 1 Yr. Minor   |
| Collective Bargaining (ILO 98)  | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| No discrimination at work (ILO 111)   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  |
| Non-discrimination of persons with disabilities   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Minor   | ✗   | ✓ Immediate Deal-breaker  |
| Workers' access to training programs  | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ < 3 Yr. Minor   | Recommendation Optional   | ✓ Within 3 years Deal-breaker   |
| Joint committees and unions   | ✓ Immediate Minor   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Formation of workers representation in countries where it is not supported by legislation | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Workers awareness of procedures and best practices                  | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Policies and procedures to monitor workers' satisfaction            | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Other criteria relating to empowerment of workers                   | ✗   | ✓ < 1 Yr.  | ✓ Recommendation  | ✗   | ✗   | ✗   |
| <b>GENDER ISSUES:</b> general principle                             | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Deal-breaker  |
| Gender policies and best practices                                  | ✗   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Women's access to health and safety services                        | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Gender considerations in impacts and risks assessment of production | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Gender considerations in stakeholder engagement process             | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Women's rights at work  | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Deal-breaker  |
| Maternity/paternity leave days                                      | ✓ < 5 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Non-discrimination based on gender   | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Deal-breaker  |
| Participation of women/minorities in management                              | ✓ < 5 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Deal-breaker  |
| Incentives to women to develop their careers (e.g. specific training)        | ✗   | ✗  | ✗   | ✗   | ✗   | ✓ < 5 Yr. Minor   |
| <b>GENDER POLICIES AT WORK - general principles</b>                          | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Family-friendly policies to increase the labour force participation of women | ✓ < 3 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Upgrading the status of and wages for traditional areas of female work       | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Development assistance policies which promote the economic role of women     | ✓ < 3 Yr. Minor   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Incentives to women to develop their careers (e.g. specific training)        | ✓ < 3 Yr. Minor   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Increased access to finance and support services for women entrepreneurs     | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| <b>MANAGEMENT</b>  | 21/47   | 1/47   | 27/47   | 38/47   | 9/47  | 19/47   |
| <b>Economic Viability</b>  | 3/6   | 0/6  | 5/6   | 6/6   | 0/6   | 3/6   |









## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| ECONOMIC VIABILITY: general principle                               | ✓ < 5 Yr. Minor   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✗   | ✗   |
| Fair competition  | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 3 Yr. Minor   |
| Production efficiency / productivity                                | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Minor   | ✗   | ✗   |
| Diversification of business operations                              | ✗   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✗   | ✗   |
| Long term sustainability management plan / continuous improvement   | ✓ < 1 Yr. Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 3 Yr. Minor   |
| ADMINISTRATION AND MANAGEMENT: general principle                    | ✓ < 1 Yr. Major   | ✗  | ✓ Recommendation  | ✓ Immediate Deal-breaker  | ✗   | ✓ < 3 Yr. Minor   |
| <b>Sustainability Management</b>                                    | <b>7/21</b>   | <b>1/21</b>  | <b>15/21</b>  | <b>16/21</b>  | <b>9/21</b>   | <b>12/21</b>  |
| ENVIRONMENT AND SOCIAL (E&S) MANAGEMENT SYSTEMS: general principles | ✓ < 1 Yr. Major   | ✗  | ✓ Recommendation  | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Staff training on sustainability issues                             | ✓ < 5 Yr. Minor   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 3 Yr. Minor   |
| Assessment of water usage   | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Assessment of risks and impacts on water levels of water resources used  | ✓ < 5 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Assessment of risks and impacts on water quality of water resources used | ✓ < 5 Yr. Minor   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Environmental risks and impacts  | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Assessment of soil condition   | ✗   | ✗  | ✓ < 3 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Assessment of biodiversity risks and impacts                             | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ < 5 Yr. Minor   |
| Environment and social risks mitigation and performance improvement      | ✓<br>Recommendation<br>Minor  | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Organizational capacity for environmental and social (E&S) management    | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 3 Yr. Minor   |
| Effectiveness of E&S management systems                                  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Reporting on and making publicly available E&S management systems        | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Emergency response plans or strategies to climate related hazards        | ✗   | ✗  | ✓ < 3 Yr.   | ✗   | ✗   | ✓ < 5 Yr. Minor   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Staff or worker evacuation safety procedures                  | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Verification of mandatory certificates and permits            | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 3 Yr. Minor   |
| Occupation Health and Safety (OHS) management system          | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Corporate Social Responsibility policy                        | ✓ Immediate Major   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Internal Control System                                       | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Respect of natural or cultural heritage                       | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Provision of access for persons or workers with special needs | ✗   | ✓ < 1 Yr.  | ✗   | ✗   | ✗   | ✗   |
| Locally appropriate principles of sustainable construction    | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| <b>Supply Chain Responsibilities</b>                          | <b>11/20</b>  | <b>0/20</b>  | <b>7/20</b>   | <b>16/20</b>  | <b>3/20</b>   | <b>4/20</b>   |
| Market data and analysis                                      | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |






## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Supply chain stakeholders mapping   | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Access to financial services (payment, credit, savings, subsidies& )                  | ✓ Immediate Deal-breaker  | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Use of price premium  | ✓ < 1 Yr. Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Minimum price guarantees  | ✓ < 1 Yr. Major   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Setting-up contracts with traders   | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Supply chain responsibility (beyond primary production)                               | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Advance payments requests   | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Distribution networks and access to markets / buyers                                  | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Access and selection of inputs and varieties (traditional versus improved/engineered) | ✓ Immediate Major   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  | ✗   |
| Traceability of inputs / varieties and records of materials used                      | ✓ Immediate Major   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  | ✓ Immediate Major   |
| Access to technology and innovation   | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Infrastructure (transport, storage, testing laboratories & )                        | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Responsible intensification of productivity   | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Monitoring / measure of customer / client satisfaction                              | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Policies encouraging clients, staff and suppliers to consider sustainability issues | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ < 3 Yr. Minor   |
| Fair marketing based on factual and unbiased information                            | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Group organization and management (e.g. cooperatives)                               | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Subcontracting (disclosure of, prior approval, auditor's access to)                 | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Criteria for local micro businesses/incubation/facilitation                         | ✓ < 1 Yr. Major   | ✗  | ✗   | ✗   | ✗   | ✗   |
| <b>QUALITY</b>  | <b>16/85</b>  | <b>0/85</b>  | <b>57/85</b>  | <b>68/85</b>  | <b>25/85</b>  | <b>8/85</b>   |
| <b>Product / Service Quality Management</b>   | <b>5/24</b>   | <b>0/24</b>  | <b>19/24</b>  | <b>22/24</b>  | <b>8/24</b>   | <b>1/24</b>   |
| Quality policy  | ✗   | ✗  | ✓ Recommendation  | ✓ Immediate Deal-breaker  | ✓ Immediate Major   | ✗   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Quality: compliance to national and international legislation | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Quality: risk assessment and hazard control procedures        | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Quality: documentation and monitoring procedures              | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Minor   | ✗   | ✗   |
| Product quality technical requirements                        | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Product safety (excl. food safety)                            | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Testing quality of inputs to production                       | ✗   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✗   | ✗   |
| Testing quality of semi-final products                        | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Testing quality of final products                             | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Using organic inputs to production                            | ✗   | ✗  | ✓ Recommendation  | ✓ < 3 Yr. Major   | ✗   | ✗   |
| Energy used during manufacturing processes                    | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✗   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Energy efficiency of production process                            | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 5 Yr. Minor   |
| Products packaging and transportation policy                       | ✓ Immediate Major   | ✗  | ✓ < 3 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✗   |
| Products storage facilities - excl. Food products                  | ✗   | ✗  | ✓ < 1 Yr.   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✗   |
| Quality Management - Quality Manual available to the staff/workers | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Quality Management - Control process documented                    | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Quality Management - Traceability and records-keeping              | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Quality Management - Objectives established and monitored          | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Quality Management - Complaint management system                   | ✗   | ✗  | ✓ < 1 Yr.   | ✗   | ✗   | ✗   |
| Quality Management - Complaints records keeping                    | ✗   | ✗  | ✓ < 1 Yr.   | ✗   | ✗   | ✗   |
| Quality Management - Periodic review of QMS by management          | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Quality Management - Internal audit system in place                | ✓ < 3 Yr. Minor   | ✗  | ✓ Immediate   | ✓ Immediate   | ✗   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
|   |   |  |   | Deal-breaker  |   |   |
| Quality Management - Monitoring and management of incidences                          | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Quality Management - Corrective actions documented                                    | ✗   | ✗  | ✓ < 1 Yr.   | ✓ < 1 Yr. Major   | ✗   | ✗   |
| <b>Food/Feed Management Systems</b>   | <b>11/61</b>  | <b>0/61</b>  | <b>38/61</b>  | <b>46/61</b>  | <b>17/61</b>  | <b>7/61</b>   |
| Determination of processes, their interactions and critical elements                  | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Establishment and implementation of Prerequisite Programme                            | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✗   | ✗   | ✗   |
| Establishment and implementation of HACCP plan  | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Compliance to relevant legal national and international food/feed safety requirements | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Raw material, intermediate & final products specifications                            | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Documented policy and related food/feed safety objectives                             | ✗   | ✗  | ✓ Recommendation  | ✗   | ✗   | ✗   |
| Documented required procedures and instructions on food/feed safety                   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |








## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Other documents to ensure effective operation of food/feed Management system         | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Communication policy towards workers on the importance of food/feed safety assurance | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Establishment of multidisciplinary HACCP team  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Procedure for managing complaints  | ✗   | ✗  | ✗   | ✓ < 3 Yr. Minor   | ✗   | ✗   |
| Established and documented training and education about food/feed safety management  | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Facilities for personnel hygiene   | ✓ < 1 Yr. Major   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |
| Protective clothing  | ✓ < 3 Yr. Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Medical screening  | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Sites are fit for safe food/feed production  | ✗   | ✗  | ✗   | ✓ < 3 Yr. Major   | ✗   | ✗   |
| Site location / Clear identification of buildings, production and storage areas      | ✓ Immediate Major   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Eating/drinking facilities separate from production areas                            | ✗   | ✗  | ✓ < 1 Yr. Major   | ✓ < 3 Yr. Major   | ✗   | ✗   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Controlled access to the site with clearly communicated hygiene instructions                                     | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Storage conditions, hygiene requirements and verification processes  | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Storage of chemicals incl. storage facilities, accessibility and handling by personnel                           | ✓ Immediate   | ✗  | ✓ Immediate   | ✓ Immediate Major   |   |   |
| Water supply volume, quality and safety assured  | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Definition and documented implementation of a proper and complete maintenance program                            | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✗   | ✗   |
| Proper and complete cleaning programme for all sites, buildings, areas and equipment                             | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Food harvesting/processing utensils cleaned, disinfected, sanitized, maintained and protected from contamination | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Suitable and lawful use of cleaning and/or sanitizing agents for food/feed safety                                | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Implementation of a proper and complete pest control programme   | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Qualification of internal and external people assured  | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ < 3 Yr. Minor   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Waste management system   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Waste water drainage, discharge, re-using, recycling processes  | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Product transportation procedures   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Assurance that risks related to harvesting, handling, processing, transportation and packaging of food/feed are identified and controlled | ✗   | ✗  | ✓ Immediate   | ✓ < 3 Yr. Major   | ✓ Immediate Major   | ✗   |
| Harvested/semi-processed products packaging protection against contamination  | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Harvested/semi-processed/final products treatment before retail   | ✗   | ✗  | ✗   | ✗   | ✗   | ✓ < 3 Yr. Minor   |
| Food production contamination risks - Glass and wood foreign bodies inspection  | ✗   | ✗  | ✗   | ✓ Immediate Minor   | ✗   | ✗   |
| Food production contamination risks - Water contamination   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Food production contamination risks - foreign body  | ✗   | ✗  | ✓ < 1 Yr.   | ✓ Immediate Major   |   |   |
| Food products handling: general policy  | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| General principle about chilling, storage and transportation                                    | ✓ Immediate Major   | ✗  | ✓ < 3 Yr.   | ✗   | ✓ Immediate Major   | ✗   |
| GMO handling procedures   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Deal-breaker  |
| Allergen handling procedures  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Identity preservation model   | ✓ Immediate Major   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Segregation model   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Mass balance model  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Procedures to ensure that formulation of products does not introduce any food/feed safety risks | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Food / feed production process & control - Health and nutrition requirements                    | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Traceability system established and monitored   | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  |
| Record information on received products and suppliers   | ✗   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Deal-breaker  |
| Product recall policy   | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS   | KEY STANDARDS   |  |   |   |   |   |
|--|---|--|---|---|---|---|
|  | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|  |  |  |  |  |  |  |
| Procedure for management and correction of non-conformities                              | ✗   | ✗  | ✗   | ✓ < 1 Yr. Major   | ✗   | ✗   |
| All potential hazards identified   | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Determination of CCPs  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Critical limits established  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Establishment of monitoring procedures for CCPs  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Establishment of corrective actions  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Verification of the HACCP plan including frequency                                       | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Records to demonstrate hazard control  | ✗   | ✗  | ✗   | ✗   | ✗   | ✗   |
| Sampling procedures for incoming goods, finished products and products during production | ✗   | ✗  | ✓ < 3 Yr.   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   |
| Food production process & control - Product analysis and testing                         | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Food production process & control - Quantity control procedures                          | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✗   |
| Maintenance and calibration of measuring equipment                                       | ✗   | ✗  | ✓ Immediate   | ✓ < 3 Yr. Major   | ✗   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| <b>ETHICS</b>   | <b>7/23</b>   | <b>1/23</b>  | <b>5/23</b>   | <b>21/23</b>  | <b>0/23</b>   | <b>8/23</b>   |
| <b>Ethics: Anti-Corruption And Bribery Principles And Criteria</b>      | <b>3/18</b>   | <b>0/18</b>  | <b>0/18</b>   | <b>18/18</b>  | <b>0/18</b>   | <b>3/18</b>   |
| Ethics - General principle  | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Corruption and bribery prevention                                       | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Corruption and bribery risk assessment                                  | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Anti-bribery requirements for political contributions                   | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Anti-bribery requirements for charitable contributions and sponsorships | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Anti-bribery requirements for facilitation of payments                  | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Anti-bribery requirements for gifts, hospitality and expenses           | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Anti-bribery requirements for staff/workers awareness                   | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points







| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|---|---|--|---|---|---|---|
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| Anti-bribery requirements for internal controls, records keeping, M&E             | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Anti-bribery requirements for external reporting and communication                | ✓ Immediate Major   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Anti-bribery requirements for mitigation and corrective actions                   | ✗   | ✗  | ✗   | ✓ Immediate Major   | ✗   | ✗   |
| Facilitation of audit implementation and auditors mobility                        | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Deal-breaker  |
| Requirements related to auditors' access to necessary sites or documentation      | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Deal-breaker  |
| Requirements to monitor and follow-up on bribery or corruption allegations        | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Requirements to keep records on bribery or corruption allegations                 | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Requirements relating to intellectual property or customer information protection | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Deal-breaker  |
| Transparency of audit findings  | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |
| Verification of business license and other mandatory certificates                 | ✗   | ✗  | ✗   | ✓ Immediate Deal-breaker  | ✗   | ✗   |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |   |  |   |   |   |   |
|---|---|--|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |  |   |   |   |   |
|   | FLO<br>SME  | ILO  | UTZ   | 4C  | IFOAM<br>ORGANICS   | RA  |
|   |  |  |  |  |  |  |
| <b>Ethics: Compliance To National, Regional And International Legislation</b>                 | 4/5   | 1/5  | 5/5   | 3/5   | 0/5   | 5/5   |
| Compliance to social and labour conventions and standards                                     | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Deal-breaker  |
| Compliance to national and regional environmental standards and regulations                   | ✓ Immediate Major   | ✗  | ✓ Immediate   | ✓ Immediate Deal-breaker  | ✗   | ✓ Immediate Major   |
| Respect of cultural and religion rights   | ✓ Immediate Major   | ✓ < 1 Yr.  | ✓ Immediate   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Compliance with local social and environmental laws and regulations                           | ✓ Immediate Major   | ✗  | ✓ Immediate Major   | ✗   | ✗   | ✓ Immediate Major   |
| Compliance with local zoning and protected or heritage area requirements                      | ✗   | ✗  | ✓ Immediate Major   | ✗   | ✗   | ✓ Immediate Major   |



## ANNEX B

### MOST DEMANDED VSS FOR MEAT (51 standards in ITC website)

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |   |   |   |   |   |
|   | GRMS  | IFOAM ORGANICS  | GLOBALG.A.P. LIVESTOCK  | SMIIC HALAL FOOD  | FSSC22000   | IFS   |
|   |  |  |  |  |  |  |
| ENVIRONMENT   | 27/157  | 92/157  | 41/157  | 15/157  | 22/157  | 35/157  |
| SOIL  | 2/13  | 11/13   | 4/13  | 0/13  | 1/13  | 0/13  |
| Soil: general principle   | ✗   | ✓ Immediate Major   | ✗   | ✗   | ✗   | ✗   |
| Soil erosion  | ✗   | ✓ Immediate Major   | ✗   | ✗   | ✗   | ✗   |
| Soil conservation   | ✗   | ✓ Immediate Major   | ✗   | ✗   | ✗   | ✗   |
| Soil quality  | ✗   | ✓ Immediate Major   | ✓ Immediate Minor   | ✗   | ✗   | ✗   |
| Soil nutrients  | ✗   | ✓ Immediate Major   | ✓ Recommendation Optional   | ✗   | ✗   | ✗   |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |                 |                   |                           |                  |             |            |
|---|-----------------|-------------------|---------------------------|------------------|-------------|------------|
| REQUIREMENTS  | KEY STANDARDS   |                   |                           |                  |             |            |
|   | GRMS            | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK    | SMIIC HALAL FOOD | FSSC22000   | IFS        |
| Soil productivity   | ✗               | ✓ Immediate Major | ✗                         | ✗                | ✗           | ✗          |
| Soil biodiversity   | ✗               | ✓ Immediate Major | ✗                         | ✗                | ✗           | ✗          |
| Soil contamination  | ✗               | ✓ Immediate Major | ✓ Immediate Minor         | ✗                | ✗           | ✗          |
| Soil preparation for specific crops   | ✗               | ✓ Immediate Major | ✗                         | ✗                | ✗           | ✗          |
| Soil maintenance  | ✓ < 3 Yr. Minor | ✓ Immediate Major | ✓ Recommendation          | ✗                | ✗           | ✗          |
| Soil enhancement by use of cover crops  | ✓ < 3 Yr. Minor | ✓ Immediate Major | ✗                         | ✗                | ✗           | ✗          |
| Soil compaction   | ✗               | ✗                 | ✗                         | ✗                | ✗           | ✗          |
| Other criteria relating to soil   | ✗               | ✗                 | ✗                         | ✗                | ✓ Immediate | ✗          |
| <b>FOREST</b>   | <b>0/8</b>      | <b>0/8</b>        | <b>1/8</b>                | <b>0/8</b>       | <b>0/8</b>  | <b>0/8</b> |
| <b>Forestry: general principle</b>  | ✗               | ✗                 | ✗                         | ✗                | ✗           | ✗          |
| Reforestation   | ✗               | ✗                 | ✗                         | ✗                | ✗           | ✗          |
| Deforestation prevention/remediation  | ✗               | ✗                 | ✗                         | ✗                | ✗           | ✗          |
| Forest conservation   | ✗               | ✗                 | ✗                         | ✗                | ✗           | ✗          |
| Forest conversion into production lands   | ✗               | ✗                 | ✓ Recommendation Optional | ✗                | ✗           | ✗          |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points   |                   |                          |                        |                  |             |                   |
|---|-------------------|--------------------------|------------------------|------------------|-------------|-------------------|
| REQUIREMENTS  | KEY STANDARDS     |                          |                        |                  |             |                   |
|   | GRMS              | IFOAM ORGANICS           | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000   | IFS               |
| Forest maintenance records of forested areas for 5-years period   | ✗                 | ✗                        | ✗                      | ✗                | ✗           | ✗                 |
| Forest management plan (FMP): baseline objectives and assessment of current conditions (stockings, species, age classes of trees etc) | ✗                 | ✗                        | ✗                      | ✗                | ✗           | ✗                 |
| Other criteria relating to forestry cons  | ✗                 | ✗                        | ✗                      | ✗                | ✗           | ✗                 |
| <b>INPUTS</b>   | <b>7/33</b>       | <b>22/33</b>             | <b>6/33</b>            | <b>5/33</b>      | <b>7/33</b> | <b>7i/33</b>      |
| <b>Chemicals / Natural organic inputs: general principle</b>  | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate            | ✓ Recommendation | ✗           | ✗                 |
| Chemicals or substances prohibition   | ✗                 | ✓ Immediate Deal-breaker | ✗                      | ✗                | ✗           | ✗                 |
| List of prohibited chemicals  | ✗                 | ✓ Immediate Deal-breaker | ✗                      | ✓ Immediate      | ✗           | ✗                 |
| Respect of list of authorized chemicals   | ✗                 | ✓ Immediate Major        | ✗                      | ✓ Immediate      | ✗           | ✗                 |
| Hazardous Chemicals – REACH   | ✗                 | ✗                        | ✗                      | ✗                | ✗           | ✗                 |
| Respect list of prohibited chemicals harmful to human health  | ✗                 | ✓ Immediate Major        | ✗                      | ✗                | ✗           | ✗                 |
| Restrictions on surfactants, cleaning agents and foam inhibitors  | ✗                 | ✓ Immediate Major        | ✗                      | ✗                | ✗           | ✗                 |
| Appropriated tests of “toxicity”  | ✗                 | ✓ Immediate Major        | ✗                      | ✗                | ✗           | ✗                 |
| Integrated Pest Management IPM / ICM  | ✗                 | ✓ Immediate Major        | ✗                      | ✗                | ✗           | ✓ Immediate Major |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS |                          |                        |                   |                   |                   |
|--|---------------|--------------------------|------------------------|-------------------|-------------------|-------------------|
|  | GRMS          | IFOAM ORGANICS           | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS               |
| Training on Integrated Pest Management (IPM)   | ✗             | ✗                        | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Chemicals and related materials: general principle   | ✗             | ✓ Immediate Major        | ✓ Immediate            | ✓ Immediate Major | ✗                 | ✗                 |
| Agrochemicals (fertilizers, pesticides, soil fumigants...)                                       | ✗             | ✓ Immediate Deal-breaker | ✓ Immediate Major      | ✗                 | ✗                 | ✗                 |
| Chemicals storage and labelling  | ✗             | ✗                        | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Chemicals equipment and containers storage & cleaning  | ✗             | ✗                        | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Protection of non-target areas from agro-chemical use  | ✗             | ✗                        | ✗                      | ✗                 | ✗                 | ✗                 |
| Regular re-calibration of agro-chemicals application equipment                                   | ✗             | ✗                        | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Production / process chemicals (extractive industries, cleaning, food & non-food manufacturing ) | ✗             | ✓ Immediate Major        | ✓ Immediate            | ✗                 | ✗                 | ✗                 |
| <b>ORGANIC NATURAL INPUTS: general principle</b>   | ✗             | ✓ Immediate Major        | ✗                      | ✓ Immediate Major | ✗                 | ✗                 |
| Use of organic fertilizer  | ✗             | ✓ Immediate Major        | ✗                      | ✗                 | ✗                 | ✗                 |
| Equipment / training   | ✗             | ✓ Immediate Major        | ✗                      | ✗                 | ✗                 | ✓ < 1 Yr. Major   |
| Chemicals variation to prevent pest resistance   | ✗             | ✗                        | ✗                      | ✗                 | ✓ Immediate Major | ✓ Immediate Major |
| Chemicals: selective & targeted application  | ✗             | ✗                        | ✗                      | ✗                 | ✗                 | ✗                 |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS     |                          |                        |                  |             |                   |
|---|-------------------|--------------------------|------------------------|------------------|-------------|-------------------|
|   | GRMS              | IFOAM ORGANICS           | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000   | IFS               |
| Training on chemicals handling and exposure                               | ✗                 | ✗                        | ✗                      | ✗                | ✓ Immediate | ✓ Immediate Major |
| Chemical substances storage/disposal/waste/labelling                      | ✗                 | ✓ Immediate Major        | ✓ Immediate Major      | ✗                | ✓ Immediate | ✓ < 1 Yr. Major   |
| Treatment of waste of chemical substances                                 | ✓ < 1 Yr.         | ✓ Immediate Major        | ✓ Immediate            | ✗                | ✗           | ✗                 |
| Criteria related to use and management of hazardous chemicals             | ✗                 | ✓ Immediate Major        | ✗                      | ✗                | ✗           | ✗                 |
| Criteria related to biodegradability of chemicals                         | ✗                 | ✗                        | ✗                      | ✗                | ✗           | ✗                 |
| GMOs / genetically modified varieties prohibition                         | ✓ Immediate Major | ✓ Immediate Major        | ✗                      | ✗                | ✗           | ✗                 |
| GMOs / genetically modified varieties management & monitoring             | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✗                      | ✗                | ✗           | ✓ < 1 Yr. Major   |
| GMOs / genetically modified varieties risk prevention                     | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✗                      | ✗                | ✗           | ✗                 |
| Genetically modified crops and products traceability and labelling        | ✗                 | ✓ Immediate Major        | ✗                      | ✗                | ✗           | ✓ < 1 Yr. Major   |
| Other   | ✗                 | ✓ Immediate Major        | ✗                      | ✗                | ✗           | ✗                 |
| <b>BIODIVERSITY</b>   | <b>7/33</b>       | <b>19/33</b>             | <b>6/33</b>            | <b>0/33</b>      | <b>0/33</b> | <b>0/33</b>       |
| <b>BIODIVERSITY: general principle</b>                                    | ✗                 | ✓ Immediate Major        | ✓ Immediate Minor      | ✗                | ✗           | ✗                 |
| Criteria to ensure adherence to international conventions on biodiversity | ✗                 | ✗                        | ✗                      | ✗                | ✗           | ✗                 |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |               |                   |                           |                  |           |     |
|---|---------------|-------------------|---------------------------|------------------|-----------|-----|
| REQUIREMENTS  | KEY STANDARDS |                   |                           |                  |           |     |
|   | GRMS          | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK    | SMIIC HALAL FOOD | FSSC22000 | IFS |
| Sustainable management and use of natural resources   | ✗             | ✓ Immediate Major | ✓ Recommendation          | ✗                | ✗         | ✗   |
| Habitat/eco-system restoration/ rehabilitation  | ✗             | ✓ Immediate Major | ✗                         | ✗                | ✗         | ✗   |
| Impact assessment policy for new production   | ✗             | ✗                 | ✓ Immediate Major         | ✗                | ✗         | ✗   |
| Protection of rare and threatened species and their habitats                                  | ✗             | ✗                 | ✗                         | ✗                | ✗         | ✗   |
| Impact assessment for ongoing production / harvesting   | ✗             | ✗                 | ✗                         | ✗                | ✗         | ✗   |
| Requirements for net positive gain in biodiversity  | ✗             | ✗                 | ✗                         | ✗                | ✗         | ✗   |
| Requirements for no net loss in biodiversity  | ✗             | ✗                 | ✗                         | ✗                | ✗         | ✗   |
| <b>WILDLIFE: general principle</b>  | ✗             | ✓ Immediate Major | ✓ Immediate Minor         | ✗                | ✗         | ✗   |
| Use of wildlife species and resources   | ✗             | ✓ Immediate Major | ✓ Recommendation Optional | ✗                | ✗         | ✗   |
| Specific criteria relating to rare, threatened or endangered wildlife species                 | ✗             | ✗                 | ✗                         | ✗                | ✗         | ✗   |
| Housing of wildlife living specimens  | ✗             | ✗                 | ✗                         | ✗                | ✗         | ✗   |
| Impacts on wildlife populations   | ✗             | ✓ Immediate Major | ✗                         | ✗                | ✗         | ✗   |
| Protecting biodiversity zones via set asides  | ✗             | ✓ Immediate Major | ✗                         | ✗                | ✗         | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS     |                   |                        |                  |           |     |
|---|-------------------|-------------------|------------------------|------------------|-----------|-----|
|   | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000 | IFS |
| Ecological niches / corridors   | ✓ < 5 Yr. Minor   | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✗   |
| Criteria related to maintaining or protecting rare, threatened or endangered ecosystems   | ✓ Immediate Major | ✗                 | ✗                      | ✗                | ✗         | ✗   |
| Criteria to avoid crop disease cross-contamination  | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗   |
| Use of local seeds  | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✗   |
| Native species protection against invasive alien species  | ✓ < 3 Yr. Minor   | ✗                 | ✗                      | ✗                | ✗         | ✗   |
| Protection of ecosystems against invasive species   | ✓ < 3 Yr. Minor   | ✗                 | ✗                      | ✗                | ✗         | ✗   |
| High Conservation Value Areas   | ✓ Immediate Major | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✗   |
| Prohibition of production on land with High Conservation Value (HCV) with conversion cut-off date no later than 2009 or at least five years history | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✗   |
| Criteria related to HCV as intended in the HCV Resource Network   | ✓ Immediate Major | ✗                 | ✗                      | ✗                | ✗         | ✗   |
| Prohibition of production on land with High Conservation Area recognized by independent expertise   | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗   |
| Legally protected and internationally recognized areas for their biodiversity   | ✓ Immediate Major | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✗   |
| Risks and impacts on ecosystem services   | ✗                 | ✓ Immediate Major | ✓ Immediate Major      | ✗                | ✗         | ✗   |
| Biotechnology use   | ✗                 | ✓ Immediate       | ✗                      | ✗                | ✗         | ✗   |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |               |                   |                        |                   |             |              |
|---|---------------|-------------------|------------------------|-------------------|-------------|--------------|
| REQUIREMENTS  | KEY STANDARDS |                   |                        |                   |             |              |
|   | GRMS          | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000   | IFS          |
|   |               | Deal-breaker      |                        |                   |             |              |
| Clearing of land with fire/explosives   | ✗             | ✓ Immediate Major | ✗                      | ✗                 | ✗           | ✗            |
| Post-production practices (impact assessment - rotation of crops)                             | ✗             | ✓ Immediate Major | ✗                      | ✗                 | ✗           | ✗            |
| Human settlements in or close to production areas   | ✗             | ✓ Immediate Major | ✗                      | ✗                 | ✗           | ✗            |
| Criteria related to natural wetlands and/or watercourses affected by production               | ✗             | ✓ Immediate Major | ✗                      | ✗                 | ✗           | ✗            |
| Criteria related to sustainable harvesting  | ✗             | ✓ Immediate Major | ✗                      | ✗                 | ✗           | ✗            |
| <b>LIVESTOCK</b>  | <b>4/21</b>   | <b>20/20</b>      | <b>13/20</b>           | <b>7/20</b>       | <b>4/20</b> | <b>19/20</b> |
| <b>ANIMALS - LIVESTOCK: general principle</b>   | ✗             | ✓ Immediate Major | ✓ Immediate            | ✓ Immediate Major | ✓ Immediate | ✗            |
| Breeding  | ✗             | ✓ Immediate Major | ✓ Immediate Minor      | ✗                 | ✗           | ✗            |
| Feeding   | ✗             | ✓ Immediate Major | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate | ✗            |
| Animal feed responsible sourcing policy   | ✗             | ✓ Immediate Major | ✗                      | ✗                 | ✗           | ✗            |
| Specific criteria on origin of animal feed  | ✗             | ✓ Immediate Major | ✗                      | ✗                 | ✗           | ✗            |
| Special criteria on quality of animal feed  | ✗             | ✓ Immediate Major | ✗                      | ✗                 | ✗           | ✗            |



## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS            |                          |                        |                   |             |     |
|---|--------------------------|--------------------------|------------------------|-------------------|-------------|-----|
|   | GRMS                     | IFOAM ORGANICS           | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000   | IFS |
| Special requirements for organic animal feed                        | ✗                        | ✓ Immediate Major        | ✗                      | ✗                 | ✗           | ✗   |
| Criteria related to animals medication                              | ✗                        | ✓ Immediate Major        | ✓ Immediate Major      | ✗                 | ✗           | ✗   |
| Procedures to prevent the spread of animal disease                  | ✗                        | ✓ Immediate Major        | ✓ Immediate Major      | ✗                 | ✓ Immediate | ✗   |
| General criteria related to animals welfare                         | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate | ✗   |
| Criteria related to transport of animals                            | ✓ < 1 Yr. Minor          | ✓ Immediate Major        | ✓ Immediate Major      | ✓ Immediate Major | ✗           | ✗   |
| Criteria related to slaughter (slaughtering process; minimum age& ) | ✓ < 1 Yr. Minor          | ✓ Immediate Major        | ✓ Immediate Major      | ✓ Immediate Major | ✗           | ✗   |
| Criteria related to the use of electric prods with livestock        | ✓ < 1 Yr. Minor          | ✓ Immediate Major        | ✗                      | ✓ Immediate Major | ✗           | ✗   |
| Techniques to be used for animal identification and/or castration   | ✗                        | ✓ Immediate Major        | ✗                      | ✗                 | ✗           | ✗   |
| Animals' physical integrity   | ✗                        | ✓ Immediate Major        | ✗                      | ✓ Immediate Major | ✗           | ✗   |
| Litter / manure   | ✗                        | ✓ Immediate Major        | ✓ Immediate Major      | ✗                 | ✗           | ✗   |
| Stock density (livestock)   | ✗                        | ✓ Immediate Major        | ✓ Immediate Major      | ✗                 | ✗           | ✗   |
| Outdoor access (livestock)  | ✗                        | ✓ Immediate Major        | ✓ Immediate Major      | ✗                 | ✗           | ✗   |
| Animal housing  | ✗                        | ✓ Immediate Deal-breaker | ✓ Immediate Major      | ✗                 | ✗           | ✗   |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |                   |                   |                        |                  |             |                 |
|---|-------------------|-------------------|------------------------|------------------|-------------|-----------------|
| REQUIREMENTS  | KEY STANDARDS     |                   |                        |                  |             |                 |
|   | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000   | IFS             |
| Other criteria relating to animals treatment  | ✗                 | ✓ Immediate Major | ✓ Immediate            | ✗                | ✗           | ✗               |
| <b>WASTE</b>  | <b>5/21</b>       | <b>10/21</b>      | <b>6/21</b>            | <b>3/21</b>      | <b>6/21</b> | <b>5/21</b>     |
| <b>WASTE MANAGEMENT: general principle</b>  | ✓ Immediate Minor | ✗                 | ✓ Immediate Major      | ✗                | ✓ Immediate | ✓ < 1 Yr. Major |
| Treatment and use of solid waste  | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗           | ✗               |
| Monitoring and measuring solid waste volumes  | ✗                 | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| Rating to reducing solid waste volumes  | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗           | ✗               |
| Monitoring and measuring waste toxicity   | ✗                 | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| Solid waste reduction / re-use / recycle  | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗           | ✗               |
| Non-solid waste   | ✗                 | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| Criteria related to waste segregation   | ✓ Immediate Minor | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| Run-off of waste chemicals, mineral and organic substances                                    | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗           | ✗               |
| Air pollution   | ✗                 | ✓ Immediate       | ✓ Immediate Major      | ✓ Recommendation | ✓ Immediate | ✗               |
| Pollution incidents mitigation: procedures for risks monitoring and records keeping           | ✗                 | ✗                 | ✗                      | ✓ Recommendation | ✗           | ✗               |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |                   |                           |                           |                  |             |                 |
|---|-------------------|---------------------------|---------------------------|------------------|-------------|-----------------|
| REQUIREMENTS  | KEY STANDARDS     |                           |                           |                  |             |                 |
|   | GRMS              | IFOAM ORGANICS            | GLOBALG.A.P. LIVESTOCK    | SMIIC HALAL FOOD | FSSC22000   | IFS             |
| Noise, odour and other pollution nuisance   | ✗                 | ✓ Immediate Major         | ✓ Recommendation Optional | ✗                | ✓ Immediate | ✓ < 1 Yr. Major |
| Composting  | ✗                 | ✓ Recommendation Optional | ✓ Recommendation Optional | ✗                | ✗           | ✗               |
| Waste packaging   | ✗                 | ✓ Immediate               | ✗                         | ✗                | ✓ Immediate | ✗               |
| Waste disposal (incl. solid waste, non-solid waste, hazardous waste)                          | ✓ Immediate Minor | ✓ Immediate Major         | ✓ Immediate Major         | ✓ < 3 Yr.        | ✓ Immediate | ✓ < 1 Yr. Major |
| Disposal of hazardous waste   | ✗                 | ✗                         | ✗                         | ✗                | ✗           | ✗               |
| Handling / disposal of waste by third parties   | ✓ Immediate Minor | ✗                         | ✓ Immediate Major         | ✗                | ✗           | ✓ < 1 Yr. Major |
| Other criteria relating to waste management   | ✗                 | ✗                         | ✗                         | ✗                | ✓ Immediate | ✓ < 1 Yr. Major |
| Waste elimination through the use of fire   | ✓ < 3 Yr. Minor   | ✗                         | ✗                         | ✗                | ✗           | ✗               |
| Avoidance of uncontrolled waste landfilling   | ✗                 | ✗                         | ✗                         | ✗                | ✗           | ✗               |
| Environmentally friendly purchasing policy (building materials and consumables)               | ✗                 | ✓ Immediate Major         | ✗                         | ✗                | ✗           | ✗               |
| <b>WATER</b>  | <b>2/14</b>       | <b>7/14</b>               | <b>2/14</b>               | <b>0/14</b>      | <b>4/14</b> | <b>4/14</b>     |
| <b>WATER USE &amp; MANAGEMENT: general principle</b>  | ✗                 | ✓ Immediate Major         | ✗                         | ✗                | ✓ Immediate | ✗               |
| Water management plan   | ✗                 | ✗                         | ✗                         | ✗                | ✗           | ✗               |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |                   |                   |                        |                  |                   |                 |
|---|-------------------|-------------------|------------------------|------------------|-------------------|-----------------|
| REQUIREMENTS  | KEY STANDARDS     |                   |                        |                  |                   |                 |
|   | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000         | IFS             |
| Water dependencies  | ✗                 | ✗                 | ✗                      | ✗                | ✓ Immediate Major | ✗               |
| Water use, reducing, including reuse and recycling  | ✗                 | ✓ Immediate Major | ✓ Immediate            | ✗                | ✗                 | ✓ < 1 Yr. Major |
| Wastewater management / treatment   | ✗                 | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Criteria relating to limitations of wastewater volume   | ✗                 | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Water contamination / pollution   | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✓ Immediate       | ✗               |
| Transboundary effects of water pollution  | ✗                 | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Water quality   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Minor      | ✗                | ✓ Immediate       | ✓ < 1 Yr. Major |
| Water disposal / storage  | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗                 | ✓ < 1 Yr. Major |
| Monitoring of water usage   | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗                 | ✗               |
| Natural wetlands are maintained in undrained conditions.                                      | ✗                 | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Water usage records keeping   | ✗                 | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Other criteria relating to water  | ✓ Immediate Minor | ✓ Immediate Major | ✗                      | ✗                | ✗                 | ✓ < 1 Yr. Major |
| ENERGY  | 0/7               | 3/7               | 3/7                    | 0/7              | 0/7               | 0/7             |
| ENERGY USE & MANAGEMENT: general principle  | ✗                 | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗                 | ✗               |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS |                           |                           |                  |            |            |
|--|---------------|---------------------------|---------------------------|------------------|------------|------------|
|  | GRMS          | IFOAM ORGANICS            | GLOBALG.A.P. LIVESTOCK    | SMIIC HALAL FOOD | FSSC22000  | IFS        |
| Application of a 'clean production principles'   | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| Reduce use of energy resources   | ✗             | ✓ Immediate Major         | ✓ Recommendation Optional | ✗                | ✗          | ✗          |
| Criteria related to storage of energy (incl. fuel, electricity& )                                | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| Use of alternative energies including solar, wind, etc   | ✗             | ✓ Recommendation Optional | ✗                         | ✗                | ✗          | ✗          |
| Use of wood-based energy   | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| Use of non-renewable energies: General Principle   | ✗             | ✗                         | ✓ Recommendation Optional | ✗                | ✗          | ✗          |
| <b>CLIMATE-CARBON</b>  | <b>0/7</b>    | <b>0/7</b>                | <b>0/7</b>                | <b>0/7</b>       | <b>0/7</b> | <b>0/7</b> |
| <b>CARBON POLICIES: general principle</b>  | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| GHG carbon emissions monitoring  | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| Monitoring/reducing non-carbon   | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| Sequestration of green-house gases: general principle  | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| Soil or trees sequestration  | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| Criteria related to the protection of high carbon landscapes / land with High Carbon Stock (HCS) | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |
| Criteria relating to specific climate adaptation activities                                      | ✗             | ✗                         | ✗                         | ✗                | ✗          | ✗          |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |               |                           |                           |                  |                   |               |
|---|---------------|---------------------------|---------------------------|------------------|-------------------|---------------|
| REQUIREMENTS  | KEY STANDARDS |                           |                           |                  |                   |               |
|   | GRMS          | IFOAM ORGANICS            | GLOBALG.A.P. LIVESTOCK    | SMIIC HALAL FOOD | FSSC22000         | IFS           |
| <b>SOCIAL</b>   | <b>7/139</b>  | <b>24/139</b>             | <b>49/139</b>             | <b>2/139</b>     | <b>8/139</b>      | <b>13/139</b> |
| <b>Human Rights And Local Communities</b>   | <b>0/33</b>   | <b>8/33</b>               | <b>2/33</b>               | <b>0/33</b>      | <b>1/33</b>       | <b>2/33</b>   |
| <b>HUMAN RIGHTS &amp; LOCAL COMMUNITIES: general principle</b>                                | ✗             | ✓ Immediate Major         | ✗                         | ✗                | ✗                 | ✗             |
| Basic human rights and local communities engagement   | ✗             | ✗                         | ✗                         | ✗                | ✗                 | ✗             |
| Practices endangering food security   | ✗             | ✗                         | ✗                         | ✗                | ✓ Immediate Major | ✓ < 1 Yr.     |
| Practices promoting healthy / high nutritional value foods                                    | ✗             | ✗                         | ✗                         | ✗                | ✗                 | ✗             |
| Production practices that reduce food and feed  | ✗             | ✗                         | ✗                         | ✗                | ✗                 | ✗             |
| Promotion/enhancement of education  | ✗             | ✓ Recommendation Optional | ✓ Recommendation Optional | ✗                | ✗                 | ✗             |
| Promotion/enhancement of medical care services  | ✗             | ✓ Recommendation Optional | ✗                         | ✗                | ✗                 | ✗             |
| Promotion/enhancement of housing and sanitary facilities                                      | ✗             | ✓ Recommendation Optional | ✓ Immediate Major         | ✗                | ✗                 | ✓ < 1 Yr.     |
| Rights of indigenous peoples (ILO 169)  | ✗             | ✗                         | ✗                         | ✗                | ✗                 | ✗             |
| Minority rights   | ✗             | ✓ Recommendation Optional | ✗                         | ✗                | ✗                 | ✗             |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS |                                 |                        |                  |           |     |
|--|---------------|---------------------------------|------------------------|------------------|-----------|-----|
|  | GRMS          | IFOAM ORGANICS                  | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000 | IFS |
| Protection of minority rights and marginalized groups                      | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Social culture and sites   | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Historical, cultural and archaeological artefacts trade                    | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Internationally recognized / legally protected sites and cultural heritage | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Community access to cultural heritage                                      | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Access to historical, cultural, archaeological and spiritually sites       | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Services and benefits to local communities                                 | ✗             | ✓<br>Recommendation<br>Optional | ✗                      | ✗                | ✗         | ✗   |
| Engagement & consultation with local communities                           | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Land title and use rights  | ✗             | ✓<br>Immediate<br>Major         | ✗                      | ✗                | ✗         | ✗   |
| Supporting local communities economic devel                                | ✗             | ✓<br>Recommendation<br>Optional | ✗                      | ✗                | ✗         | ✗   |
| Hiring workers from local communities                                      | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Purchasing local materials, goods, products and services                   | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Traditional and cultural production practices                              | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Grievance mechanisms for communities                                       | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS     |                   |                        |                  |           |      |
|--|-------------------|-------------------|------------------------|------------------|-----------|------|
|  | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000 | IFS  |
| Involuntary resettlement, physical displacement and/or economic displacement | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Compensation and benefits for displaced persons                              | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Compensation and benefits for displaced persons                              | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Planning / implementation of resettlement activities                         | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Livelihood restoration for displaced persons                                 | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Investments and associated possible impacts on land-users                    | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Free, prior and informed consent of local communities                        | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Producers are required to identify customary rights of tenure                | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Local communities access to livelihoods                                      | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| <b>Labor Practices - Conditions Of Work and Social Protection</b>            | 5/31              | 10/31             | 19/31                  | 1/31             | 5/31      | 6/31 |
| <b>CONDITIONS OF WORK: general principle</b>                                 | ✓ Immediate Minor | ✗                 | ✓ Immediate            | ✗                | ✗         | ✗    |
| Sexual exploitation / harassment   | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗    |
| Safety at work (ILO 184)   | ✗                 | ✓ Immediate Major | ✓ Immediate Major      | ✗                | ✗         | ✗    |
| Safety at work - legal compliance  | ✗                 | ✗                 | ✓ Immediate Major      | ✗                | ✗         | ✗    |
| Electrical equipments safety   | ✗                 | ✗                 | ✓ Immediate Major      | ✗                | ✗         | ✗    |



## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |                   |                        |                  |                   |                 |
|--|-----------------|-------------------|------------------------|------------------|-------------------|-----------------|
|  | GRMS            | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000         | IFS             |
| Verification and maintenance of buildings safety         | ✗               | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Fire preparedness (drills, equipment, signs)             | ✗               | ✗                 | ✓ Immediate            | ✗                | ✗                 | ✗               |
| Emergency exits and evacuation procedures                | ✓ < 1 Yr. Major | ✗                 | ✓ Immediate            | ✗                | ✗                 | ✗               |
| Publicly available evacuation procedures                 | ✗               | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Regular and scheduled emergency exit maintenance         | ✗               | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Training on safety issues                                | ✗               | ✓ Immediate Major | ✓ Immediate Minor      | ✗                | ✗                 | ✓ < 1 Yr. Major |
| Occupational health and safety, as defined in IL         | ✗               | ✗                 | ✗                      | ✗                | ✗                 | ✗               |
| Workplace safety   | ✓ < 1 Yr. Major | ✗                 | ✓ Immediate Major      | ✗                | ✗                 | ✗               |
| Safety equipment and personal protective equipment       | ✗               | ✓ Immediate Major | ✓ Immediate Major      | ✗                | ✓ Immediate       | ✓ < 1 Yr. Major |
| Machinery / equipment safety                             | ✗               | ✗                 | ✗                      | ✗                | ✓ Immediate       | ✗               |
| Emergency first aid kits                                 | ✗               | ✗                 | ✓ Immediate            | ✗                | ✗                 | ✗               |
| Safety procedures for handling chemicals                 | ✗               | ✗                 | ✓ Immediate            | ✗                | ✗                 | ✓ < 1 Yr. Major |
| Monitoring of accidents records                          | ✗               | ✗                 | ✗                      | ✗                | ✓ Immediate Major | ✓ < 1 Yr. Major |
| Training of workers on procedures to deal with accidents | ✗               | ✗                 | ✓ Immediate Minor      | ✗                | ✗                 | ✗               |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |                 |                   |                           |                  |             |                 |
|---|-----------------|-------------------|---------------------------|------------------|-------------|-----------------|
| REQUIREMENTS  | KEY STANDARDS   |                   |                           |                  |             |                 |
|   | GRMS            | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK    | SMIIC HALAL FOOD | FSSC22000   | IFS             |
| Healthy work conditions   | ✗               | ✓ Immediate Major | ✓ Recommendation Optional | ✗                | ✗           | ✗               |
| Workers' access to safe drinking water  | ✗               | ✓ Immediate Major | ✓ Immediate               | ✗                | ✗           | ✗               |
| Workers' access to decent sanitary facilities etc.)   | ✓ < 1 Yr. Major | ✗                 | ✓ Immediate Major         | ✗                | ✓ Immediate | ✓ < 1 Yr. Major |
| Workplace conditions (air quality, lighting, noise )  | ✗               | ✓ Immediate Major | ✓ Immediate               | ✗                | ✗           | ✓ < 1 Yr. Major |
| Dormitories and canteens  | ✓ < 1 Yr. Major | ✓ Immediate Major | ✓ Immediate Major         | ✗                | ✓ Immediate | ✗               |
| Workers' entitlement to breaks (e.g. meal breaks)   | ✗               | ✗                 | ✗                         | ✗                | ✗           | ✗               |
| Infirmity at production site  | ✗               | ✓ Immediate Major | ✗                         | ✗                | ✗           | ✗               |
| Prohibition of physical violence, intimidation  | ✗               | ✗                 | ✗                         | ✗                | ✗           | ✗               |
| Criteria for keeping records of disciplinary measures   | ✗               | ✓ Immediate Major | ✗                         | ✗                | ✗           | ✗               |
| Worst forms of child labor (ILO 182)  | ✗               | ✓ Immediate Major | ✓ Recommendation          | ✓ Immediate      | ✗           | ✗               |
| Other criteria relating to conditions of work   | ✗               | ✗                 | ✓ Immediate               | ✗                | ✗           | ✗               |
| Security issues / role and behavior of security guards  | ✗               | ✗                 | ✗                         | ✗                | ✗           | ✓ < 1 Yr. Major |
| <b>Labor Practices - Employment and Employment Relationships</b>                              | <b>1/47</b>     | <b>23/47</b>      | <b>28/47</b>              | <b>0/47</b>      | <b>1/47</b> | <b>4/47</b>     |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS |                   |                        |                  |             |                 |
|---|---------------|-------------------|------------------------|------------------|-------------|-----------------|
|   | GRMS          | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000   | IFS             |
| <b>CONDITIONS OF EMPLOYMENT: general principle</b>                        | ✗             | ✗                 | ✓<br>Recommendation    | ✗                | ✗           | ✗               |
| Waivers/national exemptions to maximum working hours                      | ✗             | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| Workers' compensation for medical costs in case of work related accidents | ✗             | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| Access to medical insurance   | ✗             | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| <b>HUMAN RESOURCES MANAGEMENT: general principle</b>                      | ✗             | ✓ Immediate Major | ✓<br>Recommendation    | ✗                | ✓ Immediate | ✓ < 1 Yr. Major |
| Employment / hiring practices - legal compliance                          | ✗             | ✗                 | ✓<br>Recommendation    | ✗                | ✗           | ✓ < 1 Yr. Major |
| Workforce reduction policies and practices - legal compliance             | ✗             | ✓ Immediate Major | ✗                      | ✗                | ✗           | ✗               |
| Payroll records and pay slips   | ✗             | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| Workers equipment costs (incl. uniforms)                                  | ✗             | ✗                 | ✗                      | ✗                | ✗           | ✓ < 1 Yr. Major |
| <b>LEAVE DAYS: general policy (public holidays, annual leave...)</b>      | ✗             | ✗                 | ✗                      | ✗                | ✗           | ✗               |
| 1 rest day off in 7-days period or more stringent policy                  | ✗             | ✓ Immediate Major | ✓<br>Recommendation    | ✗                | ✗           | ✗               |
| Special leave (sickness, marriage, family leave& )                        | ✗             | ✓ Immediate Major | ✗                      | ✗                | ✗           | ✗               |
| Pensions and social security benefits                                     | ✗             | ✓ Immediate Major | ✓<br>Recommendation    | ✗                | ✗           | ✗               |
| Waivers/national exemptions to full scope coverage of social benefits     | ✗             | ✗                 | ✓ < 1 Yr.              | ✗                | ✗           | ✗               |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS |                                 |                        |                  |           |     |
|---|---------------|---------------------------------|------------------------|------------------|-----------|-----|
|   | GRMS          | IFOAM ORGANICS                  | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000 | IFS |
| Transportation of workers to production site            | ✗             | ✓<br>Recommendation<br>Optional | ✗                      | ✗                | ✗         | ✗   |
| Wage compensation issues and policies                   | ✗             | ✗                               | ✓<br>Recommendation    | ✗                | ✗         | ✗   |
| Child labor and minimum age (ILO 138)                   | ✗             | ✓ Immediate<br>Major            | ✓<br>Recommendation    | ✗                | ✗         | ✗   |
| Child labour legal compliance policy                    | ✗             | ✗                               | ✓<br>Recommendation    | ✗                | ✗         | ✗   |
| Maintenance of age records of workers                   | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Child labour remediation policy                         | ✗             | ✓ Immediate<br>Major            | ✓<br>Recommendation    | ✗                | ✗         | ✗   |
| Hiring and employing young workers                      | ✗             | ✗                               | ✓<br>Recommendation    | ✗                | ✗         | ✗   |
| Good conditions of work for young workers               | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Young workers working hours                             | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Training programs for young workers                     | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Young workers access to effective grievance mechanisms  | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Young workers trained on Occupational Health and Safety | ✗             | ✗                               | ✗                      | ✗                | ✗         | ✗   |
| Equal remuneration (ILO 100)                            | ✗             | ✗                               | ✓<br>Recommendation    | ✗                | ✗         | ✗   |
| Maximum working hours                                   | ✗             | ✗                               | ✓<br>Recommendation    | ✗                | ✗         | ✗   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS |                   |                        |                  |           |                 |
|---|---------------|-------------------|------------------------|------------------|-----------|-----------------|
|   | GRMS          | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000 | IFS             |
| Hours of work and overtime monitoring                         | ✗             | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✗               |
| Other criteria relating to the conditions of employment       | ✗             | ✗                 | ✓ Recommendation       | ✗                | ✗         | ✗               |
| Part-time / contract workers' rights                          | ✗             | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✓ < 1 Yr. Major |
| Subcontracted workers' rights                                 | ✗             | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✗               |
| <b>WORK AND LABOR RIGHTS: general principle</b>               | ✗             | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✗               |
| Voluntary employment - No forced labor (ILO 29 & 105)         | ✗             | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✗               |
| Right to refuse overtime                                      | ✗             | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✗               |
| Overtime compensation required/specified                      | ✗             | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✗               |
| Use of prison labor   | ✗             | ✗                 | ✓ < 1 Yr.              | ✗                | ✗         | ✗               |
| Template/format for terms of labour contracts                 | ✗             | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✗               |
| Migrant workers' employment and contract management           | ✗             | ✗                 | ✗                      | ✗                | ✗         | ✗               |
| Illegal/excessive deductions or fees (incl. Recruitment fees) | ✗             | ✗                 | ✗                      | ✗                | ✗         | ✗               |
| Retention of workers' documentation (ID, passport)            | ✗             | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✗               |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS   |                           |                        |                  |             |             |
|--|-----------------|---------------------------|------------------------|------------------|-------------|-------------|
|  | GRMS            | IFOAM ORGANICS            | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000   | IFS         |
| Use of contracts in written form                               | ✗               | ✓ Immediate Major         | ✓ Recommendation       | ✗                | ✗           | ✗           |
| Workers mobility and freedom of movement                       | ✗               | ✗                         | ✗                      | ✗                | ✗           | ✗           |
| Timely payment of wages  | ✗               | ✗                         | ✓ Recommendation       | ✗                | ✗           | ✗           |
| Minimum Wage   | ✗               | ✓ Immediate Major         | ✓ < 1 Yr.              | ✗                | ✗           | ✗           |
| Living Wage  | ✗               | ✗                         | ✓ Recommendation       | ✗                | ✗           | ✗           |
| Policies and procedures to address workers' grievances         | ✗               | ✗                         | ✓ Recommendation       | ✗                | ✗           | ✗           |
| <b>Labor Practices - Human Development and Social Dialogue</b> | <b>1/28</b>     | <b>4/28</b>               | <b>10/28</b>           | <b>1/28</b>      | <b>1/28</b> | <b>1/28</b> |
| Freedom of association (ILO 87)                                | ✗               | ✓ Immediate Major         | ✓ Recommendation       | ✗                | ✗           | ✗           |
| Collective Bargaining (ILO 98)                                 | ✗               | ✓ Immediate Major         | ✓ Recommendation       | ✗                | ✗           | ✗           |
| No discrimination at work (ILO 111)                            | ✗               | ✓ Immediate Major         | ✓ Recommendation       | ✗                | ✗           | ✗           |
| Non-discrimination of persons with disabilities                | ✗               | ✗                         | ✗                      | ✗                | ✗           | ✗           |
| Workers' access to training programs                           | ✓ < 1 Yr. Major | ✓ Recommendation Optional | ✓ Immediate Major      | ✗                | ✗           | ✗           |
| Joint committees and unions                                    | ✗               | ✗                         | ✓ Immediate Minor      | ✗                | ✗           | ✗           |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS |                |                        |                  |             |                 |
|---|---------------|----------------|------------------------|------------------|-------------|-----------------|
|   | GRMS          | IFOAM ORGANICS | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000   | IFS             |
| Formation of workers representation in countries where it is not supported by legislation | ✗             | ✗              | ✓<br>Recommendation    | ✗                | ✗           | ✗               |
| Workers awareness of procedures and best practices  | ✗             | ✗              | ✓<br>Recommendation    | ✗                | ✓ Immediate | ✓ < 1 Yr. Mayor |
| Policies and procedures to monitor workers' satisfaction                                  | ✗             | ✗              | ✗                      | ✓ < 1 Yr.        | ✗           | ✗               |
| Other criteria relating to empowerment of workers   | ✗             | ✗              | ✓<br>Recommendation    | ✗                | ✗           | ✗               |
| Maternity/paternity leave days  | ✗             | ✗              | ✓<br>Recommendation    | ✗                | ✗           | ✗               |
| Non-discrimination based on gender  | ✗             | ✗              | ✓<br>Recommendation    | ✗                | ✗           | ✗               |
| <b>GENDER ISSUES:</b> general principle   | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Gender policies and best practices  | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Women's access to health and safety services  | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Gender considerations in impacts and risks assessment of production                       | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Gender considerations in stakeholder engagement process                                   | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Women's rights at work  | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Maternity/paternity leave days  | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Non-discrimination based on gender  | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Participation of women/minorities in management   | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS |                |                        |                  |             |                 |
|--|---------------|----------------|------------------------|------------------|-------------|-----------------|
|  | GRMS          | IFOAM ORGANICS | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000   | IFS             |
| Incentives to women to develop their careers (e.g. specific training)        | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| <b>GENDER POLICIES AT WORK - general principles</b>                          | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Family-friendly policies to increase the labour force participation of women | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Upgrading the status of and wages for traditional areas of female work       | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Development assistance policies which promote the economic role of women     | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Incentives to women to develop their careers (e.g. specific training)        | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Increased access to finance and support services for women entrepreneurs     | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| <b>MANAGEMENT</b>  | <b>16/46</b>  | <b>18/46</b>   | <b>16/46</b>           | <b>1/46</b>      | <b>3/46</b> | <b>7/46</b>     |
| <b>Economic Viability</b>  | <b>0/6</b>    | <b>0/6</b>     | <b>0/6</b>             | <b>0/6</b>       | <b>0/6</b>  | <b>1/6</b>      |
| <b>ECONOMIC VIABILITY: general principle</b>                                 | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Fair competition   | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Production efficiency / productivity   | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Diversification of business operations                                       | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| Long term sustainability management plan / continuous improvement            | ✗             | ✗              | ✗                      | ✗                | ✗           | ✓ < 1 Yr. Major |
| <b>ADMINISTRATION AND MANAGEMENT: general principle</b>                      | ✗             | ✗              | ✗                      | ✗                | ✗           | ✗               |
| <b>Sustainability Management</b>   | <b>7/22</b>   | <b>9/22</b>    | <b>9/22</b>            | <b>1/22</b>      | <b>0/22</b> | <b>5/22</b>     |



## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS     |                   |                        |                  |           |                 |
|--|-------------------|-------------------|------------------------|------------------|-----------|-----------------|
|  | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000 | IFS             |
| <b>ENVIRONMENT AND SOCIAL (E&amp;S) MANAGEMENT SYSTEMS: general principles</b> | ✓ Immediate Minor | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✓ < 1 Yr. Major |
| Staff training on sustainability issues  | ✓ Immediate Minor | ✓ Immediate Major | ✓ Immediate            | ✗                | ✗         | ✗               |
| Assessment of water usage  | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✗               |
| Assessment of risks and impacts on water levels of water resources used        | ✗                 | ✓ Immediate Major | ✓ Immediate Major      | ✗                | ✗         | ✗               |
| Assessment of risks and impacts on water quality of water resources used       | ✗                 | ✓ Immediate Major | ✗                      | ✗                | ✗         | ✗               |
| Environmental risks and impacts  | ✓ Immediate Minor | ✓ Immediate Major | ✓ Immediate Major      | ✗                | ✗         | ✗               |
| Assessment of soil condition   | ✗                 | ✓ Immediate Major | ✓ Recommendation       | ✗                | ✗         | ✗               |
| Assessment of biodiversity risks and impacts                                   | ✗                 | ✓ Immediate Major | ✓ Immediate Major      | ✗                | ✗         | ✗               |
| Environment and social risks mitigation and performance improvement            | ✓ Immediate Minor | ✓ Immediate Major | ✓ Immediate Minor      | ✗                | ✗         | ✗               |
| Organizational capacity for environmental and social (E&S) management          | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✓ < 1 Yr. Major |
| Effectiveness of E&S management systems  | ✓ Immediate Minor | ✗                 | ✓ Immediate Minor      | ✗                | ✗         | ✗               |
| Reporting on and making publicly available E&S management systems              | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗               |
| Emergency response plans or strategies to climate related hazards              | ✗                 | ✗                 | ✗                      | ✗                | ✗         | ✗               |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS     |                |                        |                  |             |                   |
|--|-------------------|----------------|------------------------|------------------|-------------|-------------------|
|  | GRMS              | IFOAM ORGANICS | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000   | IFS               |
| Staff or worker evacuation safety procedures                         | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |
| Verification of mandatory certificates and permits                   | ✗                 | ✗              | ✗                      | ✓ Immediate      | ✗           | ✗                 |
| Occupation Health and Safety (OHS) management system                 | ✓ Immediate Minor | ✗              | ✓ Immediate Major      | ✗                | ✗           | ✗                 |
| Corporate Social Responsibility policy                               | ✓ Immediate Major | ✗              | ✗                      | ✗                | ✗           | ✓ < 1 Yr. Major   |
| Internal Control System  | ✗                 | ✗              | ✓ Immediate            | ✗                | ✗           | ✓ Immediate Major |
| Respect of natural or cultural heritage                              | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |
| Provision of access for persons or workers with special needs        | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |
| Locally appropriate principles of sustainable construction           | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |
| Other criteria relating to administration and management issues      | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✓ Immediate Major |
| <b>Supply Chain Responsibilities</b>                                 | <b>3/20</b>       | <b>3/20</b>    | <b>1/20</b>            | <b>0/20</b>      | <b>3/20</b> | <b>1/20</b>       |
| Market data and analysis   | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |
| Supply chain stakeholders mapping                                    | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |
| Access to financial services (payment, credit, savings, subsidies& ) | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |
| Use of price premium   | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |
| Minimum price guarantees   | ✗                 | ✗              | ✗                      | ✗                | ✗           | ✗                 |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS            |                          |                        |                  |                   |                 |
|---|--------------------------|--------------------------|------------------------|------------------|-------------------|-----------------|
|   | GRMS                     | IFOAM ORGANICS           | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000         | IFS             |
| Setting-up contracts with traders   | ✗                        | ✗                        | ✗                      | ✗                | ✗                 | ✗               |
| Supply chain responsibility (beyond primary production)                               | ✗                        | ✗                        | ✗                      | ✗                | ✗                 | ✗               |
| Advance payments requests   | ✗                        | ✗                        | ✗                      | ✗                | ✗                 | ✗               |
| Distribution networks and access to markets / buyers                                  | ✗                        | ✗                        | ✗                      | ✗                | ✗                 | ✗               |
| Access and selection of inputs and varieties (traditional versus improved/engineered) | ✗                        | ✓ Immediate Deal-breaker | ✗                      | ✗                | ✗                 | ✗               |
| Traceability of inputs / varieties and records of materials used                      | ✓ Immediate Deal-breaker | ✓ Immediate Deal-breaker | ✓ Immediate Major      | ✗                | ✓ Immediate       | ✗               |
| Access to technology and innovation   | ✗                        | ✓ Immediate Major        | ✗                      | ✗                | ✗                 | ✗               |
| Infrastructure (transport, storage, testing laboratories & )                          | ✓ Immediate Minor        | ✗                        | ✗                      | ✗                | ✓ Immediate Major | ✗               |
| Responsible intensification of productivity   | ✗                        | ✗                        | ✗                      | ✗                | ✗                 | ✗               |
| Monitoring / measure of customer / client satisfaction                                | ✓ Immediate Minor        | ✗                        | ✗                      | ✗                | ✓ Immediate       | ✓ < 1 Yr. Major |
| Policies encouraging clients, staff and suppliers to consider sustainability issues   | ✗                        | ✗                        | ✗                      | ✗                | ✗                 | ✗               |
| Fair marketing based on factual and unbiased information                              | ✗                        | ✗                        | ✗                      | ✗                | ✗                 | ✗               |
| Group organization and management (e.g. cooperatives)                                 | ✗                        | ✗                        | ✓ Immediate Major      | ✗                | ✗                 | ✗               |
| Subcontracting (disclosure of, prior approval, auditor's access to)                   | ✗                        | ✗                        | ✗                      | ✗                | ✗                 | ✗               |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS            |                   |                        |                   |                   |                   |
|---|--------------------------|-------------------|------------------------|-------------------|-------------------|-------------------|
|   | GRMS                     | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS               |
| Criteria for local micro businesses/incubation/facilitation   | ✗                        | ✗                 | ✗                      | ✗                 | ✗                 | ✗                 |
| <b>QUALITY</b>  | <b>114/148</b>           | <b>24/148</b>     | <b>34/148</b>          | <b>49/148</b>     | <b>115/148</b>    | <b>58/148</b>     |
| <b>Product / Service Quality Management</b>                   | <b>17/25</b>             | <b>7/25</b>       | <b>5/25</b>            | <b>18/25</b>      | <b>15/25</b>      | <b>11/25</b>      |
| Quality policy  | ✓ Immediate Minor        | ✓ Immediate Major | ✓ Immediate Major      | ✓ Immediate Major | ✗                 | ✓ Immediate Major |
| Quality: compliance to national and international legislation | ✓ Immediate Minor        | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✗                 |
| Quality: risk assessment and hazard control procedures        | ✓ Immediate Deal-breaker | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate Major | ✗                 |
| Quality: documentation and monitoring procedures              | ✓ Immediate Minor        | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate Major | ✗                 |
| Product quality technical requirements                        | ✓ Immediate Minor        | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate Major |
| Product safety (excl. food safety)                            | ✗                        | ✗                 | ✗                      | ✓ Immediate Major | ✗                 | ✗                 |
| Testing quality of inputs to production                       | ✗                        | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✗                 |
| Testing quality of semi-final products                        | ✗                        | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✗                 |
| Testing quality of final products                             | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✗                 | ✗                 |
| Using organic inputs to production                            | ✗                        | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✗                 | ✗                 |
| Energy used during manufacturing processes                    | ✗                        | ✓ Immediate Major | ✗                      | ✓ < 3 Yr.         | ✗                 | ✗                 |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS            |                   |                        |                   |                   |                   |
|--|--------------------------|-------------------|------------------------|-------------------|-------------------|-------------------|
|  | GRMS                     | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS               |
| Energy efficiency of production process                            | ✗                        | ✗                 | ✗                      | ✗                 | ✗                 | ✗                 |
| Products packaging and transportation policy                       | ✓ Immediate Minor        | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate Major |
| Products storage facilities - excl. Food products                  | ✗                        | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✗                 |
| Quality Management - Quality Manual available to the staff/workers | ✗                        | ✗                 | ✗                      | ✗                 | ✗                 | ✓ < 1 Yr. Major   |
| Quality Management - Control process documented                    | ✓ Immediate Minor        | ✗                 | ✗                      | ✓ Immediate       | ✗                 | ✓ < 1 Yr. Major   |
| Quality Management - Traceability and records-keeping              | ✓ Immediate Deal-breaker | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✗                 |
| Quality Management - Objectives established and monitored          | ✓ Immediate Minor        | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✗                 | ✓ < 1 Yr. Major   |
| Quality Management - Customer focus & performance indicators       | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✗                 | ✓ < 1 Yr. Major   |
| Quality Management - Complaint management system                   | ✓ Immediate Minor        | ✗                 | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate Major | ✗                 |
| Quality Management - Complaints records keeping                    | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✗                 |
| Quality Management - Periodic review of QMS by management          | ✓ Immediate Minor        | ✗                 | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Quality Management - Internal audit system in place                | ✓ Immediate Minor        | ✗                 | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate Major |
| Quality Management - Monitoring and management of incidences       | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |

| Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points |                   |                |                        |                   |                          |                   |
|---|-------------------|----------------|------------------------|-------------------|--------------------------|-------------------|
| REQUIREMENTS  | KEY STANDARDS     |                |                        |                   |                          |                   |
|   | GRMS              | IFOAM ORGANICS | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000                | IFS               |
| Quality Management - Corrective actions documented  | ✓ Immediate Minor | ✗              | ✓ Immediate Minor      | ✓ Immediate Major | ✓ Immediate              | ✓ Immediate Major |
| <b>Non-Food Manufactured Products Technical Specifications</b>                                | 0/2               | 0/2            | 1/2                    | 0/2               | 2/2                      | 1/2               |
| Quality Management - Purchasing and supplier approval system in place                         | ✗                 | ✗              | ✓ Immediate Major      | ✗                 | ✓ Immediate              | ✓ < 1 Yr. Major   |
| Quality Management - production site specifications established and inspected                 | ✗                 | ✗              | ✗                      | ✗                 | ✓ Immediate Major        | ✗                 |
| <b>Food/Feed Management Systems</b>   | 97/121            | 17/121         | 28/121                 | 31/121            | 99/121                   | 46/121            |
| Definition of scope (products, operations)  | ✓ Immediate Major | ✗              | ✗                      | ✓ Immediate Major | ✓ Immediate              | ✗                 |
| Determination of processes, their interactions and critical elements                          | ✗                 | ✗              | ✗                      | ✓ Immediate Major | ✓ Immediate Major        | ✓ < 1 Yr. Major   |
| Determination of criteria and methods to ensure effective operation and control of the risks  | ✓ Immediate Major | ✗              | ✗                      | ✗                 | ✗                        | ✗                 |
| Establishment and implementation of Prerequisite Programme                                    | ✓ Immediate Major | ✗              | ✗                      | ✓ Immediate Major | ✓ Immediate Major        | ✗                 |
| Establishment and implementation of HACCP plan  | ✓ Immediate Major | ✗              | ✗                      | ✓ Immediate Major | ✓ Immediate              | ✓ Immediate Major |
| Determination of all necessary inspections, monitoring and measurements                       | ✓ Immediate Minor | ✗              | ✗                      | ✗                 | ✓ Immediate Major        | ✗                 |
| Implementation of actions to achieve quality objectives                                       | ✓ Immediate Minor | ✗              | ✗                      | ✗                 | ✓ Immediate Major        | ✗                 |
| Compliance to relevant legal national and international food/feed safety requirements         | ✓ Immediate Minor | ✗              | ✗                      | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✓ < 1 Yr. Major   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS     |                   |                        |                   |                   |                   |
|---|-------------------|-------------------|------------------------|-------------------|-------------------|-------------------|
|   | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS               |
| Communication within the organisation and upstream/downstream in the chain  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Raw material, intermediate & final products specifications  | ✓ Immediate Minor | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate Major |
| Legal requirements related to food/feed safety are specified  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Specification of outsourced activities covered under the scope  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Specifications of exclusions (products, operations, locations, processes, etc.)   | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✗                 | ✗                 |
| Documented policy and related food/feed safety objectives   | ✓ Immediate Major | ✗                 | ✓ Immediate Minor      | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate Major |
| Documented required procedures and instructions on food/feed safety   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major |
| Other documents to ensure effective operation of food/feed Management system  | ✓ Immediate Minor | ✗                 | ✓ Immediate            | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Documentation workflow procedure in place   | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Procedure to safely store data and records  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Communication policy towards workers on the importance of food/feed safety assurance  | ✓ Immediate Minor | ✗                 | ✓ Immediate Major      | ✗                 | ✓ Immediate Major | ✓ Immediate Major |
| Food/feed Safety Manager appointed to implement food/feed safety management system  | ✗                 | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| A clear food/feed safety statement exists to document company's commitment to compliance with legal, market and customers' requirements | ✓ Immediate Major | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS     |                |                        |                  |                   |                   |
|---|-------------------|----------------|------------------------|------------------|-------------------|-------------------|
|   | GRMS              | IFOAM ORGANICS | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000         | IFS               |
| Operation of an effective food/feed safety management system                        | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Existence of an organigram and job descriptions                                     | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✗                 | ✗                 |
| Establishment of multidisciplinary HACCP team leader                                | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Procedure for external and internal communication                                   | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Food/Feed Safety Management System review   | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Procedure for managing complaints   | ✓ Immediate Minor | ✗              | ✓ Immediate Major      | ✗                | ✓ Immediate Major | ✗                 |
| Procedure for reviewing complaints to establish preventive or corrective actions    | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Implementation of a complete internal audit programme                               | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Qualifications for internal auditors  | ✗                 | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Planning and frequency of audits  | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Established and documented training and education about food/feed safety management | ✓ Immediate Minor | ✗              | ✓ Immediate Minor      | ✗                | ✓ Immediate Major | ✓ Immediate Major |
| Facilities for personnel hygiene  | ✓ Immediate Minor | ✗              | ✓ Immediate            | ✗                | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Prohibition to eat, drink and smoke in production/storage areas                     | ✓ Immediate Minor | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ < 1 Yr. Major   |



## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS     |                   |                        |                   |                   |                   |
|--|-------------------|-------------------|------------------------|-------------------|-------------------|-------------------|
|  | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS               |
| Protective clothing  | ✓ Immediate Minor | ✗                 | ✓ Immediate            | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Medical screening  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Sites are fit for safe food/feed production  | ✓ Immediate Minor | ✗                 | ✓ Immediate            | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Site location / Clear identification of buildings, production and storage areas        | ✓ Immediate Minor | ✗                 | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Eating/drinking facilities separate from production areas                              | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✗                 |
| Controlled access to the site with clearly communicated hygiene instructions           | ✓ Immediate Minor | ✗                 | ✓ Immediate            | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Implementation of protective measures against sabotage, vandalism or terrorism         | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Storage conditions, hygiene requirements and verification processes                    | ✓ < 1 Yr.         | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major |
| Storage of chemicals incl. storage facilities, accessibility and handling by personnel | ✓ Immediate Major | ✗                 | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Water supply volume, quality and safety assured  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major      | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Documentation of processing aid used during food/feed production                       | ✓ Immediate Major | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Documentation of suitability of air and air system for feed/food safety                | ✗                 | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Suitability of packaging materials for food/feed safety                                | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS            |                   |                        |                   |                   |                   |
|--|--------------------------|-------------------|------------------------|-------------------|-------------------|-------------------|
|  | GRMS                     | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS               |
| Definition and documented implementation of a proper and complete maintenance program                            | ✓ Immediate Minor        | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate Major |
| Proper and complete cleaning programme for all sites, buildings, areas and equipment                             | ✓ Immediate Minor        | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Food harvesting/processing utensils cleaned, disinfected, sanitized, maintained and protected from contamination | ✓ Immediate Minor        | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✗                 | ✗                 |
| Suitable and lawful use of cleaning and/or sanitizing agents for food/feed safety                                | ✗                        | ✓ Immediate Major | ✓ Immediate            | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Implementation of a proper and complete pest control programme   | ✓ Immediate Minor        | ✓ Immediate Major | ✓ Immediate            | ✗                 | ✓ Immediate       | ✓ Immediate Major |
| Qualification of internal and external people assured  | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Waste management system  | ✓ Immediate Minor        | ✓ Immediate Major | ✓ Immediate Minor      | ✗                 | ✓ Immediate       | ✓ Immediate Major |
| Overview and assessment of all suppliers, contracts and services   | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| A procedure to approve the ingredient-supplier combination   | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Suppliers' evaluation  | ✓ Immediate Major        | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Flowcharts of the whole production process   | ✓ Immediate Deal-breaker | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Product transportation procedures  | ✓ Immediate Minor        | ✓ Immediate Major | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Waste water drainage, discharge, re-using, recycling processes   | ✗                        | ✓ Immediate Major | ✗                      | ✓ Immediate       | ✓ Immediate Major | ✗                 |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS     |                   |                        |                   |                   |                   |
|---|-------------------|-------------------|------------------------|-------------------|-------------------|-------------------|
|   | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS               |
| Assurance that products meet the specified criteria   | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Assurance that risks related to harvesting, handling, processing, transportation and packaging of food/feed are identified and controlled | ✓ Immediate Major | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✗                 |
| Harvested/semi-processed products packaging protection against contamination  | ✗                 | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major |
| Harvested/semi-processed/final products treatment before retail   | ✗                 | ✗                 | ✗                      | ✓ Immediate Major | ✗                 | ✗                 |
| Food production contamination risks - Glass and wood foreign bodies inspection  | ✓ Immediate Minor | ✗                 | ✓ Immediate Major      | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Food production contamination risks - Water contamination   | ✓ Immediate Major | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✗                 |
| Food production contamination risks - foreign body  | ✓ Immediate Major | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✓ Immediate Major |
| Assurance that validated procedures exist to control unintended (cross)contamination of products  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Food products handling: general policy  | ✓ Immediate Major | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate Major | ✗                 |
| General principle about chilling, storage and transportation  | ✓ Immediate Minor | ✓ Immediate Major | ✓ Immediate            | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| GMO handling procedures   | ✗                 | ✗                 | ✗                      | ✓ Immediate       | ✗                 | ✓ < 1 Yr. Major   |
| Allergen handling procedures  | ✓ Immediate Major | ✗                 | ✗                      | ✗                 | ✓ Immediate       | ✓ < 1 Yr. Major   |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS  | KEY STANDARDS            |                   |                        |                   |                   |                   |
|---|--------------------------|-------------------|------------------------|-------------------|-------------------|-------------------|
|   | GRMS                     | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS               |
| Identity preservation model   | ✓ Immediate Major        | ✗                 | ✓ Immediate            | ✗                 | ✗                 | ✓ < 1 Yr. Major   |
| Segregation model   | ✗                        | ✓ Immediate Major | ✓ Immediate Major      | ✗                 | ✗                 | ✗                 |
| Mass balance model  | ✗                        | ✗                 | ✓ Immediate Major      | ✗                 | ✗                 | ✗                 |
| Procedure for rework  | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Correct use of rework   | ✗                        | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Record usage of rework  | ✗                        | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Procedure for outsourced activities   | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✗                 | ✗                 |
| Procedures to ensure that formulation of products does not introduce any food/feed safety risks | ✓ Immediate Major        | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate       | ✓ < 1 Yr. Major   |
| Food / feed production process & control - Health and nutrition requirements                    | ✗                        | ✗                 | ✗                      | ✓ Immediate Major | ✓ Immediate Major | ✗                 |
| Products labelling compliant with applicable legal requirements                                 | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗                 |
| Traceability system established and monitored   | ✓ Immediate Deal-breaker | ✓ Immediate Major | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate Major |
| Record information on received products and suppliers   | ✓ Immediate Major        | ✗                 | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate Major |
| Record information on delivered products and customers  | ✓ Immediate Minor        | ✗                 | ✗                      | ✗                 | ✗                 | ✗                 |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS            |                |                        |                  |                   |                   |
|--|--------------------------|----------------|------------------------|------------------|-------------------|-------------------|
|  | GRMS                     | IFOAM ORGANICS | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000         | IFS               |
| Product recall policy  | ✓ Immediate Minor        | ✗              | ✓ Immediate Major      | ✗                | ✓ Immediate       | ✓ Immediate Major |
| Food/feed safety incidents records keeping                     | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✗                 | ✗                 |
| Notification of Competent Authority                            | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Notification of certification body                             | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Notification of scheme manager                                 | ✗                        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Recall simulation  | ✗                        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Food/feed safety incidents management procedure                | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✗                 | ✗                 |
| Food/feed safety incidents records keeping                     | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✗                 | ✗                 |
| Procedure for management and correction of non-conformities    | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✓ Immediate Major |
| Conducting a hazard analysis                                   | ✓ Immediate Deal-breaker | ✗              | ✗                      | ✗                | ✗                 | ✗                 |
| All potential hazards identified                               | ✓ Immediate Deal-breaker | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ Immediate Major |
| Definition of occurrence and severity incl. calculation-matrix | ✗                        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Determination of CCPs  | ✓ Immediate Major        | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ Immediate Major |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS            |                |                        |                  |                   |                   |
|--|--------------------------|----------------|------------------------|------------------|-------------------|-------------------|
|  | GRMS                     | IFOAM ORGANICS | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD | FSSC22000         | IFS               |
| Critical limits established  | ✓ Immediate Major        | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ Immediate Major |
| Monitoring of CCPs   | ✓ Immediate Major        | ✗              | ✗                      | ✗                | ✗                 | ✗                 |
| Establishment of monitoring procedures for CCPs                            | ✓ Immediate Major        | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ Immediate Major |
| Establishment of corrective actions  | ✓ Immediate Deal-breaker | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ Immediate Major |
| Verification of the HACCP plan including frequency                         | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ Immediate Major |
| Records to demonstrate hazard control                                      | ✓ Immediate Major        | ✗              | ✗                      | ✗                | ✓ Immediate       | ✓ Immediate Major |
| Assessment of HACCP plan for potential updates                             | ✗                        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Validation of the HACCP plan after each update                             | ✗                        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Definition of all monitoring activities to demonstrate control of the CCPs | ✓ Immediate Major        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Verification programme for effectiveness of PRPs                           | ✗                        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Verification programme for other procedures                                | ✗                        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |
| Definition of a verification program                                       | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✗                 | ✗                 |
| Record of monitoring results   | ✓ Immediate Minor        | ✗              | ✗                      | ✗                | ✓ Immediate Major | ✗                 |

## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS   | KEY STANDARDS     |                   |                        |                   |                   |      |
|--|-------------------|-------------------|------------------------|-------------------|-------------------|------|
|  | GRMS              | IFOAM ORGANICS    | GLOBALG.A.P. LIVESTOCK | SMIIC HALAL FOOD  | FSSC22000         | IFS  |
| Analysis and review of monitoring results  | ✗                 | ✗                 | ✗                      | ✗                 | ✓ Immediate Major | ✗    |
| Quarantine/release procedure based on risk assessment                                    | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✗                 | ✗    |
| Sampling   | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✗                 | ✗    |
| Sampling procedures for incoming goods, finished products and products during production | ✗                 | ✓ Immediate Major | ✗                      | ✓ Immediate Major | ✓ Immediate Major | ✗    |
| Food production process & control - Product analysis and testing                         | ✓ Immediate Minor | ✗                 | ✓ Immediate Major      | ✓ Immediate Major | ✓ Immediate Major | ✗    |
| Food production process & control - Quantity control procedures                          | ✗                 | ✗                 | ✓ Immediate Major      | ✗                 | ✓ Immediate Major | ✗    |
| Laboratory and methods for analysis  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✗                 | ✗    |
| Requirements for laboratories  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✗                 | ✗    |
| Measuring devices on site  | ✓ Immediate Minor | ✗                 | ✗                      | ✗                 | ✗                 | ✗    |
| Maintenance and calibration of measuring equipment                                       | ✓ Immediate Minor | ✗                 | ✓ Immediate Minor      | ✓ Immediate       | ✓ < 3 Yr. Major   | ✗    |
| <b>ETHICS</b>  |                   |                   |                        |                   |                   |      |
| <b>Ethics: Anti-Corruption And Bribery Principles And Criteria</b>                       | 0/17              | 0/17              | 1/17                   | 0/17              | 2/17              | 0/17 |
| Ethics - General principle   | ✗                 | ✗                 | ✗                      | ✗                 | ✗                 | ✗    |
| Corruption and bribery prevention  | ✗                 | ✗                 | ✗                      | ✗                 | ✗                 | ✗    |







## Major VSS in coffee, cacao, and coconut: Comparison of Principles and Critical Control Points

| REQUIREMENTS                           | KEY STANDARDS |                   |                           |                     |           |     |
|--|---------------|-------------------|---------------------------|---------------------|-----------|-----|
|  | GRMS          | IFOAM<br>ORGANICS | GLOBALG.A.P.<br>LIVESTOCK | SMIIC<br>HALAL FOOD | FSSC22000 | IFS |
| Corruption and bribery risk assessment | ✗             | ✗                 | ✗                         | ✗                   | ✗         | ✗   |



## ANNEX C

### MOST DEMANDED VSS FOR AQUACULTURE (53 standards registered in ITC)

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| STANDARD REQUIREMENTS  | KEY STANDARDS   |   |   |   |   |   |
|  | ASC<br>PANGASIUS  | ASC<br>SHRIMP   | GAA-BAP   | GLOBALG.A.P.<br>AQUACULTURE   | BRC<br>UK   | NATURLAND   |
|  |  |  |  |  |  |  |
| <b>OVERALL</b>   | <b>148/449</b>  | <b>163/449</b>  | <b>210/449</b>  | <b>199/449</b>  | <b>61/449</b>   | <b>173/449</b>  |
| <b>ENVIRONMENT</b>   | <b>59/160</b>   | <b>70/160</b>   | <b>67/160</b>   | <b>78/160</b>   | <b>21/160</b>   | <b>97/160</b>   |
| <b>SOIL</b>  | <b>0/8</b>  | <b>5/8</b>  | <b>5/8</b>  | <b>4/8</b>  | <b>0/8</b>  | <b>3/13</b>   |
| Soil: general principle  | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Soil erosion   | ✗   | ✗   | ✓ Immediate Major   | ✓ Immediate Major   | ✗   | ✓ Immediate Major   |
| Soil conservation  | ✗   | ✗   | ✗   | ✗   | ✗   | ✓ Immediate Major   |
| Soil quality   | ✗   | ✓ Immediate Major   | ✓ Immediate Deal-breaker  | ✗   | ✗   | ✗   |
| Soil nutrients   | ✗   | ✗   | ✓ Immediate Major   | ✓ Recommendation Optional   | ✗   | ✗   |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points  |                |                   |                          |                           |             |                   |
|---|----------------|-------------------|--------------------------|---------------------------|-------------|-------------------|
| STANDARD REQUIREMENTS   | KEY STANDARDS  |                   |                          |                           |             |                   |
|   | ASC PANGASIOUS | ASC SHRIMP        | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE  | BRC UK      | NATURLAND         |
| Soil productivity   | ✗              | ✗                 | ✗                        | ✗                         | ✗           | ✗                 |
| Soil biodiversity   | ✗              | ✗                 | ✗                        | ✗                         | ✗           | ✗                 |
| Soil contamination  | ✗              | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✓ Immediate Minor         | ✗           | ✗                 |
| <b>FOREST</b>   | <b>0/9</b>     | <b>4/9</b>        | <b>4/9</b>               | <b>6/9</b>                | <b>0/9</b>  | <b>5/9</b>        |
| Forestry: general principle   | ✗              | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         | ✗           | ✗                 |
| Reforestation   | ✗              | ✓ < 1 Yr. Minor   | ✓ Immediate Major        | ✓ Immediate Major         | ✗           | ✓ Immediate Major |
| Deforestation prevention/remediation  | ✗              | ✓ < 1 Yr. Minor   | ✓ Immediate Major        | ✓ Immediate Major         | ✗           | ✓ Immediate Major |
| Forest conservation   | ✗              | ✗                 | ✗                        | ✓ Immediate Major         | ✗           | ✓ Immediate Major |
| Forest conversion into production lands   | ✗              | ✓ < 1 Yr. Minor   | ✓ Immediate Major        | ✓ Immediate Major         | ✗           | ✓ Immediate Major |
| Principles conversion of agriculture land to non-agriculture purposes   | ✗              | ✗                 | ✗                        | ✓ Recommendation Optional | ✗           | ✗                 |
| Forest maintenance records of forested areas for 5-years period   | ✗              | ✗                 | ✗                        | ✗                         | ✗           | ✓ Immediate Major |
| Forest management plan (FMP): baseline objectives and assessment of current conditions (stockings, species, age classes of trees etc) | ✗              | ✗                 | ✗                        | ✗                         | ✗           | ✗                 |
| <b>INPUTS</b>   | <b>10/32</b>   | <b>13/32</b>      | <b>13/32</b>             | <b>13/32</b>              | <b>6/32</b> | <b>21/32</b>      |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                          |                          |                   |                          |
|--|-------------------|-------------------|--------------------------|--------------------------|-------------------|--------------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                          |                          |                   |                          |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND                |
| Chemicals / Natural organic inputs: general principle                                    | ✓ Immediate Major | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Deal-breaker |
| Chemicals or substances prohibition  | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                        | ✗                        | ✗                 | ✓ Immediate Deal-breaker |
| List of prohibited chemicals   | ✓ < 1 Yr. Minor   | ✓ < 1 Yr. Minor   | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✗                 | ✓ Immediate Deal-breaker |
| Respect of list of authorized chemicals  | ✗                 | ✗                 | ✗                        | ✓ Immediate Major        | ✗                 | ✓ Immediate Deal-breaker |
| List of authorized chemicals   | ✗                 | ✗                 | ✗                        | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Deal-breaker |
| Hazardous Chemicals – REACH  | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✓ Immediate Deal-breaker |
| Respect list of prohibited chemicals harmful to human health                             | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✓ Immediate Deal-breaker |
| Restrictions on surfactants, cleaning agents and foam inhibitors                         | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✓ Immediate Deal-breaker |
| Appropriated tests of “toxicity”   | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✓ Immediate Deal-breaker |
| Integrated Pest Management IPM / ICM   | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✗                        |
| Training on Integrated Pest Management (IPM)   | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✗                        |
| Chemicals and related materials: general principle                                       | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✗                 | ✓ Immediate Deal-breaker |
| Agrochemicals (fertilizers, pesticides, soil fumigants...)                               | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗                        | ✗                 | ✓ Immediate Deal-breaker |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points         |                   |                   |                   |                          |                   |                          |
|--|-------------------|-------------------|-------------------|--------------------------|-------------------|--------------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |                   |                          |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND                |
| Chemicals storage and labelling  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗                 | ✓ Immediate Deal-breaker |
| Chemicals equipment and containers storage & cleaning  | ✗                 | ✗                 | ✓ Immediate Major | ✗                        | ✗                 | ✗                        |
| Protection of non-target areas from agro-chemical use  | ✗                 | ✓ < 1 Yr. Minor   | ✓ Immediate       | ✗                        | ✗                 | ✗                        |
| Regular re-calibration of agro-chemicals application equipment                                   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                        |
| Production / process chemicals (extractive industries, cleaning, food & non-food manufacturing ) | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗                 | ✓ Immediate Deal-breaker |
| <b>ORGANIC NATURAL INPUTS: general principle</b>   | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        |
| Use of organic fertilizer  | ✗                 | ✗                 | ✓ Immediate Major | ✗                        | ✗                 | ✓ Immediate Major        |
| Equipment / training   | ✗                 | ✓ Immediate Major | ✗                 | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major        |
| Chemicals variation to prevent pest resistance   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                        |
| Chemicals: selective & targeted application  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✓ Immediate Major        |
| Training on chemicals handling and exposure  | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        |
| Chemical substances storage/disposal/waste/labelling   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major | ✗                        |
| Treatment of waste of chemical substances  | ✓ Immediate       | ✓ Immediate       | ✗                 | ✓ Immediate Minor        | ✗                 | ✗                        |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                          |                          |                          |                          |
|--|-------------------|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                          |                          |                          |                          |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK                   | NATURLAND                |
| Criteria related to use and management of hazardous chemicals                            | ✗                 | ✗                 | ✗                        | ✗                        | ✗                        | ✓ Immediate Deal-breaker |
| Criteria related to biodegradability of chemicals  | ✗                 | ✗                 | ✗                        | ✗                        | ✗                        | ✗                        |
| GMOs / genetically modified varieties prohibition  | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                        | ✓ Immediate Major        | ✗                        | ✓ Immediate Deal-breaker |
| GMOs / genetically modified varieties management & monitoring                            | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major        | ✓ Immediate Deal-breaker | ✓ Immediate Deal-breaker |
| GMOs / genetically modified varieties risk prevention                                    | ✗                 | ✗                 | ✗                        | ✗                        | ✗                        | ✗                        |
| Genetically modified crops and products traceability and labelling                       | ✗                 | ✗                 | ✓ Immediate Major        | ✓ Immediate Major        | ✓ Immediate Deal-breaker | ✗                        |
| Other  | ✓ < 1 Yr. Minor   | ✗                 | ✗                        | ✗                        | ✗                        | ✗                        |
| <b>BIODIVERSITY</b>  | <b>16/34</b>      | <b>16/34</b>      | <b>16/34</b>             | <b>18/34</b>             | <b>0/34</b>              | <b>19/34</b>             |
| <b>BIODIVERSITY: general principle</b>   | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major        | ✗                        | ✓ Immediate Major        |
| Criteria to ensure adherence to international conventions on biodiversity                | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗                        | ✗                        | ✗                        |
| Sustainable management and use of natural resources                                      | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major        | ✗                        | ✓ Immediate Major        |
| Habitat/eco-system restoration/ rehabilitation   | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Major        | ✓ Immediate Major        | ✗                        | ✗                        |
| Impact assessment policy for new production  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✗                        | ✓ Immediate Major        |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                          |        |                   |
|--|-------------------|-------------------|-------------------|--------------------------|--------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |        |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK | NATURLAND         |
| Protection of rare and threatened species and their habitats                             | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗      | ✓ Immediate Major |
| Impact assessment for ongoing production / harvesting                                    | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗      | ✗                 |
| Requirements for net positive gain in biodiversity                                       | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Requirements for no net loss in biodiversity   | ✗                 | ✓ < 1 Yr. Major   | ✓ Immediate Major | ✗                        | ✗      | ✗                 |
| <b>WILDLIFE: general principle</b>   | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Use of wildlife species and resources  | ✓ < 3 Yr. Minor   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Specific criteria relating to rare, threatened or endangered wildlife species            | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✗                        | ✗      | ✗                 |
| Impacts on wildlife populations  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Protecting biodiversity zones via set asides   | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗      | ✗                 |
| Ecological niches / corridors  | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Criteria related to maintaining or protecting rare, threatened or endangered ecosystems  | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Criteria to avoid crop disease cross-contamination                                       | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗      | ✓ Immediate Major |
| Aquaculture density / diversity  | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✗      | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points  |                   |                   |                   |                          |        |                   |
|---|-------------------|-------------------|-------------------|--------------------------|--------|-------------------|
| STANDARD REQUIREMENTS   | KEY STANDARDS     |                   |                   |                          |        |                   |
|   | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK | NATURLAND         |
| Use of local seeds  | ✓ Immediate       | ✓ < 1 Yr. Minor   | ✗                 | ✗                        | ✗      | ✓ Immediate Major |
| Native species protection against invasive alien species  | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Protection of ecosystems against invasive species   | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗      | ✓ Immediate Major |
| High Conservation Value Areas   | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✗      | ✗                 |
| Prohibition of production on land with High Conservation Value (HCV) with conversion cut-off date no later than 2009 or at least five years history | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Criteria related to HCV as intended in the HCV Resource Network   | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Prohibition of production on land with High Conservation Area recognized by independent expertise   | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✓ Immediate Major |
| Legally protected and internationally recognized areas for their biodiversity   | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Risks and impacts on ecosystem services   | ✗                 | ✓ Immediate Major | ✗                 | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Biotechnology use   | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Clearing of land with fire/explosives   |                   |                   |                   |                          | ✗      | ✗                 |
| Post-production practices (impact assessment - rotation of crops)   | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗      | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                          |                          |                          |             |                   |
|--|-------------------|--------------------------|--------------------------|--------------------------|-------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                          |                          |                          |             |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP               | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK      | NATURLAND         |
| Human settlements in or close to production areas  | ✓ Immediate Major | ✓ Immediate Major        | ✗                        | ✓ Recommendation         | ✗           | ✓ Immediate Major |
| Other criteria relating to biodiversity  | ✓ Immediate Major | ✗                        | ✗                        | ✓ Immediate Major        | ✗           | ✗                 |
| Criteria related to natural wetlands and/or watercourses affected by production          | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major        | ✗                        | ✗           | ✗                 |
| Criteria related to sustainable harvesting   | ✗                 | ✗                        | ✓ Immediate Major        | ✗                        | ✗           | ✗                 |
| <b>LIVESTOCK</b>   | <b>12/26</b>      | <b>11/26</b>             | <b>11/26</b>             | <b>13/26</b>             | <b>0/26</b> | <b>20/28</b>      |
| <b>ANIMALS - LIVESTOCK: general principle</b>  | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major        | ✓ Immediate Major        | ✗           | ✓ Immediate Major |
| Breeding   | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major        | ✗                        | ✗           | ✓ Immediate Major |
| Feeding  | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major        | ✓ Immediate              | ✗           | ✓ Immediate Major |
| Animal feed responsible sourcing policy  | ✗                 | ✗                        | ✗                        | ✗                        | ✗           | ✓ Immediate Major |
| Specific criteria on origin of animal feed   | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✓ Immediate Deal-breaker | ✗                        | ✗           | ✓ Immediate Major |
| Special criteria on quality of animal feed   | ✓ < 1 Yr. Minor   | ✓ Immediate Major        | ✓ Immediate Major        | ✗                        | ✗           | ✓ Immediate Major |
| Special requirements for organic animal feed   | ✗                 | ✗                        | ✗                        | ✗                        | ✗           | ✓ Immediate Major |
| Criteria related to animals medication   | ✓ Immediate Major | ✓ < 1 Yr. Minor          | ✓ Immediate Deal-breaker | ✓ Immediate              | ✗           | ✓ Immediate Major |



| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points        |                   |                   |                   |                          |        |                   |
|---|-------------------|-------------------|-------------------|--------------------------|--------|-------------------|
| STANDARD REQUIREMENTS   | KEY STANDARDS     |                   |                   |                          |        |                   |
|   | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK | NATURLAND         |
| Procedures to prevent the spread of animal disease  | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| General criteria related to animals welfare   | ✓ Immediate Major | ✓ Immediate       | ✓ Immediate       | ✓ Immediate              | ✗      | ✓ Immediate Major |
| Criteria related to transport of animals  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Criteria related to slaughter (slaughtering process; minimum age& )                             | ✗                 | ✗                 | ✓ Immediate       | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Animals' physical integrity   | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Litter / manure   | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✗                 | ✗                        | ✗      | ✓ Immediate Major |
| Stock density (livestock)   | ✓ Immediate Major | ✗                 | ✗                 | ✗                        | ✗      | ✓ Immediate Major |
| Outdoor access (livestock)  | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗      | ✗                 |
| Animal housing  | ✓ Immediate Major | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Aquaculture - interior / exterior housing   | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Aquaculture - polyculture   | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✓ Immediate Major |
| Aquaculture - analysis of water quality   | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✓ Immediate Major        | ✗      | ✓ Immediate Major |
| Aquaculture: systems in place to minimize the unintentional release or escape of farmed species | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗      | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                          |                   |                          |
|--|-------------------|-------------------|-------------------|--------------------------|-------------------|--------------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |                   |                          |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND                |
| Aquaculture: use of hatchery raised seed   | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        |
| Aquaculture: prohibition of prophylactic use of antimicrobials                           | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        |
| Other criteria relating to animals treatment   | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✓ Immediate              | ✗                 | ✓ Immediate Deal-breaker |
| <b>WASTE</b>   | <b>9/22</b>       | <b>12/22</b>      | <b>13/22</b>      | <b>13/22</b>             | <b>9/22</b>       | <b>13/22</b>             |
| <b>WASTE MANAGEMENT: general principle</b>   | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major        |
| Treatment and use of solid waste   | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate              | ✗                 | ✓ Immediate Major        |
| Monitoring and measuring solid waste volumes   | ✗                 | ✓ Immediate Major | ✗                 | ✓ Immediate Minor        | ✗                 | ✓ Immediate Major        |
| Rating to reducing solid waste volumes   | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate              | ✗                 | ✗                        |
| Monitoring and measuring waste toxicity  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✓ Immediate Major        |
| Solid waste reduction / re-use / recycle   | ✗                 | ✓ Immediate Major | ✓ Immediate Minor | ✓ Immediate Minor        | ✗                 | ✓ Immediate Major        |
| Non-solid waste  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate              | ✗                 | ✓ Immediate Major        |
| Criteria related to waste segregation  | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗                 | ✗                        |
| Run-off of waste chemicals, mineral and organic substances                               | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                           |                   |                   |
|--|-------------------|-------------------|-------------------|---------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                           |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE  | BRC UK            | NATURLAND         |
| Air pollution  | ✗                 | ✓ Immediate Major | ✗                 | ✗                         | ✗                 | ✗                 |
| Pollution incidents mitigation: procedures for risks monitoring and records keeping      | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✗                         | ✗                 | ✓ Immediate Major |
| Noise, odour and other pollution nuisance  | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Minor         | ✗                 | ✗                 |
| Composting   | ✗                 | ✗                 | ✓ Immediate Major | ✓ Recommendation Optional | ✗                 | ✓ Immediate Major |
| Waste packaging  | ✗                 | ✗                 | ✗                 | ✗                         | ✗                 | ✓ Immediate Major |
| Waste disposal (incl. solid waste, non-solid waste, hazardous waste)                     | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major         | ✓ Immediate Major | ✓ Immediate Major |
| Disposal of hazardous waste  | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✗                 | ✗                         | ✓ Immediate Major | ✗                 |
| Handling / disposal of waste by third parties  | ✗                 | ✗                 | ✗                 | ✗                         | ✓ Immediate Major | ✗                 |
| Other criteria relating to waste management  | ✓ Immediate Major | ✗                 | ✗                 | ✓ Immediate Major         | ✗                 | ✗                 |
| Waste elimination through the use of fire  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major         | ✗                 | ✓ Immediate Major |
| Avoidance of uncontrolled waste landfilling  | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                         | ✗                 | ✗                 |
| Environmentally friendly purchasing policy (building materials and consumables)          | ✗                 | ✗                 | ✗                 | ✗                         | ✗                 | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                          |                   |                   |
|--|-------------------|-------------------|-------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| Disposables measured / reduced   | ✗                 | ✗                 | ✗                 | ✓ Immediate Minor        | ✗                 | ✗                 |
| <b>WATER</b>   | <b>11/14</b>      | <b>9/14</b>       | <b>10/14</b>      | <b>8/14</b>              | <b>5/14</b>       | <b>12/14</b>      |
| <b>WATER USE &amp; MANAGEMENT: general principle</b>                                     | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |
| Water management plan  | ✓ Immediate Major | ✗                 | ✗                 | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Water dependencies   | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✗                        | ✗                 | ✓ Immediate Major |
| Water use, reducing, including reuse and recycling                                       | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✗                        | ✓ Immediate Major | ✓ Immediate Major |
| Wastewater management / treatment  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate              | ✓ Immediate Major | ✓ Immediate Major |
| Criteria relating to limitations of wastewater volume                                    | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✗                        | ✗                 | ✓ Immediate Major |
| Water contamination / pollution  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Transboundary effects of water pollution   | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Water quality  | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Water disposal / storage   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate              | ✓ Immediate Major | ✓ Immediate Major |
| Monitoring of water usage  | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                           |                   |                           |
|--|-------------------|-------------------|-------------------|---------------------------|-------------------|---------------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                           |                   |                           |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE  | BRC UK            | NATURLAND                 |
| Natural wetlands are maintained in undrained conditions.                                 | ✗                 | ✗                 | ✗                 | ✗                         | ✗                 | ✗                         |
| Water usage records keeping  | ✗                 | ✗                 | ✓ Immediate Major | ✗                         | ✗                 | ✓ Immediate Major         |
| Other criteria relating to water   | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                 | ✗                         | ✓ Immediate Major | ✗                         |
| <b>ENERGY</b>  | <b>1/7</b>        | <b>1/7</b>        | <b>0/7</b>        | <b>3/7</b>                | <b>1/7</b>        | <b>4/7</b>                |
| <b>ENERGY USE &amp; MANAGEMENT: general principle</b>                                    | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✓ Recommendation Optional | ✓ Immediate Major | ✓ Recommendation Optional |
| Application of a 'clean production principles'   | ✗                 | ✗                 | ✗                 | ✗                         | ✗                 | ✗                         |
| Reduce use of energy resources   | ✗                 | ✗                 | ✗                 | ✓ Recommendation Optional | ✗                 | ✓ Immediate Major         |
| Criteria related to storage of energy (incl. fuel, electricity& )                        | ✗                 | ✗                 | ✗                 | ✗                         | ✗                 | ✗                         |
| Use of alternative energies including solar, wind, etc                                   | ✗                 | ✗                 | ✗                 | ✓ Recommendation Optional | ✗                 | ✓ Recommendation Optional |
| Use of wood-based energy   | ✗                 | ✗                 | ✗                 | ✗                         | ✗                 | ✗                         |
| Use of non-renewable energies: General Principle   | ✗                 | ✗                 | ✗                 | ✗                         | ✗                 | ✓ Recommendation Optional |
| <b>CLIMATE-CARBON</b>  | <b>0/7</b>        | <b>0/7</b>        | <b>0/7</b>        | <b>0/7</b>                | <b>0/7</b>        | <b>0/7</b>                |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points         |                   |                   |                   |                          |                   |                   |
|--|-------------------|-------------------|-------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| <b>CARBON POLICIES: general principle</b>  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| GHG carbon emissions monitoring  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Monitoring/reducing non-carbon   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Sequestration of green-house gases: general principle  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Soil or trees sequestration  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Criteria related to the protection of high carbon landscapes / land with High Carbon Stock (HCS) | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Criteria relating to specific climate adaptation activities                                      | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| <b>SOCIAL</b>  | <b>58/137</b>     | <b>60/137</b>     | <b>67/137</b>     | <b>81/137</b>            | <b>9/137</b>      | <b>44/137</b>     |
| <b>Human Rights And Local Communities</b>  | <b>13/34</b>      | <b>20/34</b>      | <b>10/34</b>      | <b>27/34</b>             | <b>7/34</b>       | <b>8/34</b>       |
| <b>HUMAN RIGHTS &amp; LOCAL COMMUNITIES: general principle</b>                                   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Basic human rights and local communities engagement  | ✓ Immediate       | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗                 | ✗                 |
| Practices endangering food security  | ✗                 | ✗                 | ✓ Immediate Major | ✗                        | ✗                 | ✗                 |
| Practices promoting healthy / high nutritional value foods                                       | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                        | ✓ Immediate Major | ✗                 |
| Production practices that reduce food and feed   | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                        | ✗                 | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |             |                              |        |                   |
|--|-------------------|-------------------|-------------|------------------------------|--------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |             |                              |        |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP     | GLOBALG.A.P. AQUACULTURE     | BRC UK | NATURLAND         |
| Promotion/enhancement of education   | ✗                 | ✗                 | ✗           | ✓<br>Recommendation Optional | ✗      | ✗                 |
| Promotion/enhancement of medical care services   | ✓ Immediate Major | ✗                 | ✗           | ✗                            | ✗      | ✓ Immediate Major |
| Promotion/enhancement of housing and sanitary facilities                                 | ✗                 | ✗                 | ✗           | ✓ Immediate Minor            | ✗      | ✓ Immediate Major |
| Rights of indigenous peoples (ILO 169)   | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✓<br>Recommendation Optional | ✗      | ✓ Immediate Major |
| Minority rights  | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✗                            | ✗      | ✓ Immediate Major |
| Protection of minority rights and marginalized groups                                    | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✗                            | ✗      | ✓ Immediate Major |
| Social culture and sites   | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✗                            | ✗      | ✗                 |
| Historical, cultural and archaeological artefacts trade                                  | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✗                            | ✗      | ✗                 |
| Internationally recognized / legally protected sites and cultural heritage               | ✗                 | ✗                 | ✗           | ✓ Immediate Major            | ✗      | ✗                 |
| Community access to cultural heritage  | ✗                 | ✗                 | ✗           | ✗                            | ✗      | ✗                 |
| Access to historical, cultural, archaeological and spiritually sites                     | ✗                 | ✗                 | ✗           | ✗                            | ✗      | ✗                 |
| Services and benefits to local communities   | ✗                 | ✗                 | ✗           | ✗                            | ✗      | ✗                 |
| Engagement & consultation with local communities   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate | ✓ Immediate Minor            | ✗      | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                          |        |                   |
|--|-------------------|-------------------|-------------------|--------------------------|--------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |        |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK | NATURLAND         |
| Land title and use rights  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate       | ✗                        | ✗      | ✓ Immediate Minor |
| Supporting local communities economic devel  | ✗                 | ✓ Immediate Major | ✗                 | ✗                        | ✗      | ✗                 |
| Hiring workers from local communities  | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                        | ✗      | ✗                 |
| Purchasing local materials, goods, products and services                                 | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✓ Immediate Minor |
| Traditional and cultural production practices  | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Grievance mechanisms for communities   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗      | ✗                 |
| Involuntary resettlement, physical displacement and/or economic displacement             | ✗                 | ✓ < 1 Yr. Minor   | ✗                 | ✗                        | ✗      | ✗                 |
| Compensation and benefits for displaced persons  | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Compensation and benefits for displaced persons  | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Livelihood restoration for displaced persons   | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Investments and associated possible impacts on land-users                                | ✗                 | ✗                 | ✗                 | ✗                        | ✗      | ✗                 |
| Free, prior and informed consent of local communities                                    | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                        | ✗      | ✗                 |
| Impact assessment on health, safety and security of local activities                     | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✗                        | ✗      | ✗                 |
| Impact assessment on access to basic services to local communities                       | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Major | ✗                        | ✗      | ✗                 |



| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                             |             |                   |
|--|-------------------|-------------------|-------------------|-----------------------------|-------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                             |             |                   |
|  | ASC<br>PANGASIOUS | ASC<br>SHRIMP     | GAA-BAP           | GLOBALG.A.P.<br>AQUACULTURE | BRC<br>UK   | NATURLAND         |
| Producers are required to identify customary rights of tenure                            | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major           | ✗           | ✗                 |
| Local communities access to livelihoods  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✗                           | ✗           | ✗                 |
| <b>Labor Practices - Conditions Of Work and Social Protection</b>                        | <b>9/30</b>       | <b>14/30</b>      | <b>22/30</b>      | <b>20/30</b>                | <b>6/30</b> | <b>10/30</b>      |
| <b>CONDITIONS OF WORK: general principle</b>   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major           | ✗           | ✓ Immediate Major |
| Sexual exploitation / harassment   | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✗                           | ✗           | ✗                 |
| Safety at work (ILO 184)   | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✓ Immediate Major           | ✗           | ✓ Immediate Major |
| Safety at work - legal compliance  | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major           | ✗           | ✗                 |
| Electrical equipments safety   | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Minor           | ✗           | ✗                 |
| Verification and maintenance of buildings safety   | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Minor           | ✗           | ✗                 |
| Fire preparedness (drills, equipment, signs)   | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Minor           | ✗           | ✗                 |
| Emergency exits and evacuation procedures  | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Minor           | ✗           | ✗                 |
| Publicly available evacuation procedures   | ✗                 | ✗                 | ✗                 | ✗                           | ✗           | ✗                 |
| Regular and scheduled emergency exit maintenance   | ✗                 | ✗                 | ✗                 | ✗                           | ✗           | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                             |                   |                   |
|--|-------------------|-------------------|-------------------|-----------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                             |                   |                   |
|  | ASC<br>PANGASIOUS | ASC<br>SHRIMP     | GAA-BAP           | GLOBALG.A.P.<br>AQUACULTURE | BRC<br>UK         | NATURLAND         |
| Training on safety issues  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Minor           | ✓ Immediate Major | ✓ Immediate Major |
| Occupational health and safety, as defined in IL   | ✗                 | ✗                 | ✗                 | ✗                           | ✗                 | ✗                 |
| Workplace safety   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major           | ✗                 | ✓ Immediate Major |
| Safety equipment and personal protective equipment                                       | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Major           | ✓ Immediate Major | ✗                 |
| Machinery / equipment safety   | ✗                 | ✗                 | ✓ Immediate Major | ✗                           | ✓ Immediate Major | ✗                 |
| Emergency first aid kits   | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Minor           | ✗                 | ✗                 |
| Safety procedures for handling chemicals   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Minor           | ✓ Immediate Major | ✓ Immediate Major |
| Monitoring of accidents records  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✗                           | ✗                 | ✓ Immediate Major |
| Training of workers on procedures to deal with accidents                                 | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Minor           | ✗                 | ✓ Immediate Major |
| Healthy work conditions  | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✗                           | ✗                 | ✗                 |
| Workers' access to safe drinking water   | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate                 | ✗                 | ✓ Immediate Major |
| Workers' access to decent sanitary facilities etc.)                                      | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major           | ✓ Immediate Major | ✗                 |
| Workplace conditions (air quality, lighting, noise )                                     | ✗                 | ✗                 | ✗                 | ✓ Immediate Minor           | ✓ Immediate Major | ✗                 |





















## Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points

| STANDARD REQUIREMENTS   | KEY STANDARDS     |                   |                   |                           |             |                   |
|---|-------------------|-------------------|-------------------|---------------------------|-------------|-------------------|
|   | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE  | BRC UK      | NATURLAND         |
| Dormitories and canteens  | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major         | ✗           | ✗                 |
| Workers' entitlement to breaks (e.g. meal breaks)                         | ✗                 | ✗                 | ✗                 | ✓ Recommendation Optional | ✗           | ✗                 |
| Infirmary at production site  | ✗                 | ✗                 | ✓ Immediate Major | ✗                         | ✗           | ✓ Immediate Major |
| Prohibition of physical violence, intimidation                            | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                         | ✗           | ✗                 |
| Criteria for keeping records of disciplinary measures                     | ✗                 | ✓ Immediate Major | ✗                 | ✗                         | ✗           | ✗                 |
| Worst forms of child labor (ILO 182)                                      | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✓ Recommendation Optional | ✗           | ✓ Immediate Major |
| Other criteria relating to conditions of work                             | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Major         | ✗           | ✗                 |
| <b>Labor Practices - Employment and Employment Relationships</b>          | <b>27/48</b>      | <b>27/48</b>      | <b>23/48</b>      | <b>22/48</b>              | <b>1/48</b> | <b>19/48</b>      |
| <b>CONDITIONS OF EMPLOYMENT: general principle</b>                        | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Recommendation Optional | ✗           | ✓ Immediate Major |
| Waivers/national exemptions to maximum working hours                      | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✓ Immediate Major         | ✗           | ✓ Immediate Major |
| Workers' compensation for medical costs in case of work related accidents | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                         | ✗           | ✗                 |
| Access to medical insurance   | ✓ Immediate Major | ✗                 | ✗                 | ✗                         | ✗           | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                           |        |                   |
|--|-------------------|-------------------|-------------------|---------------------------|--------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                           |        |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE  | BRC UK | NATURLAND         |
| <b>HUMAN RESOURCES MANAGEMENT: general principle</b>                                     | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✗                         | ✗      | ✗                 |
| Employment / hiring practices - legal compliance   | ✓ Immediate       | ✓ Immediate Major | ✓ Immediate Major | ✓ Recommendation Optional | ✗      | ✓ Immediate Major |
| Workforce reduction policies and practices - legal compliance                            | ✗                 | ✗                 | ✗                 | ✗                         | ✗      | ✗                 |
| Payroll records and pay slips  | ✗                 | ✗                 | ✓ Immediate Major | ✓ Recommendation Optional | ✗      | ✗                 |
| Workers equipment costs (incl. uniforms)   | ✗                 | ✗                 | ✗                 | ✗                         | ✗      | ✗                 |
| <b>LEAVE DAYS: general policy (public holidays, annual leave...)</b>                     | ✗                 | ✗                 | ✓ Immediate Major | ✗                         | ✗      | ✓ Immediate Major |
| 1 rest day off in 7-days period or more stringent policy                                 | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                         | ✗      | ✗                 |
| Special leave (sickness, marriage, family leave& )                                       | ✗                 | ✗                 | ✗                 | ✗                         | ✗      | ✗                 |
| Pensions and social security benefits  | ✗                 | ✗                 | ✓ Immediate       | ✗                         | ✗      | ✓ Immediate Major |
| Waivers/national exemptions to full scope coverage of social benefits                    | ✗                 | ✗                 | ✗                 | ✗                         | ✗      | ✗                 |
| Transportation of workers to production site   | ✗                 | ✓ Immediate Major | ✗                 | ✗                         | ✗      | ✗                 |
| Wage compensation issues and policies  | ✓ Immediate Major | ✗                 | ✗                 | ✓ Recommendation          | ✗      | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                      |                      |                             |                                 |           |                      |
|--|----------------------|----------------------|-----------------------------|---------------------------------|-----------|----------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS        |                      |                             |                                 |           |                      |
|  | ASC<br>PANGASIOUS    | ASC<br>SHRIMP        | GAA-BAP                     | GLOBALG.A.P.<br>AQUACULTURE     | BRC<br>UK | NATURLAND            |
| Child labor and minimum age (ILO 138)  | ✓ Immediate<br>Major | ✓ Immediate<br>Major | ✓ Immediate<br>Deal-breaker | ✓<br>Recommendation<br>Optional | ✗         | ✓ Immediate<br>Major |
| Child labour legal compliance policy   | ✓ Immediate<br>Major | ✓ Immediate<br>Major | ✓ Immediate<br>Deal-breaker | ✓<br>Recommendation<br>Optional | ✗         | ✗                    |
| Maintenance of age records of workers  | ✗                    | ✗                    | ✗                           | ✗                               | ✗         | ✗                    |
| Child labour remediation policy  | ✗                    | ✗                    | ✗                           | ✓<br>Recommendation             | ✗         | ✗                    |
| Hiring and employing young workers   | ✓ Immediate<br>Major | ✓ Immediate<br>Major | ✓ Immediate<br>Major        | ✓<br>Recommendation<br>Optional | ✗         | ✗                    |
| Good conditions of work for young workers  | ✗                    | ✗                    | ✗                           | ✗                               | ✗         | ✗                    |
| Young workers working hours  | ✗                    | ✗                    | ✗                           | ✗                               | ✗         | ✗                    |
| Training programs for young workers  | ✗                    | ✗                    | ✗                           | ✗                               | ✗         | ✗                    |
| Young workers access to effective grievance mechanisms                                   | ✗                    | ✗                    | ✗                           | ✗                               | ✗         | ✗                    |
| Young workers trained on Occupational Health and Safety                                  | ✗                    | ✗                    | ✗                           | ✗                               | ✗         | ✗                    |
| Equal remuneration (ILO 100)   | ✓ Immediate<br>Major | ✓ Immediate<br>Major | ✓ Immediate<br>Major        | ✓<br>Recommendation<br>Optional | ✗         | ✓ Immediate<br>Major |
| Maximum working hours  | ✓ Immediate<br>Major | ✓ Immediate<br>Major | ✓ Immediate<br>Major        | ✓<br>Recommendation<br>Optional | ✗         | ✓ Immediate<br>Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                          |                           |                   |                   |
|--|-------------------|-------------------|--------------------------|---------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                          |                           |                   |                   |
|  | ASC PANGASIUS     | ASC SHRIMP        | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE  | BRC UK            | NATURLAND         |
| Hours of work and overtime monitoring  | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✓ Recommendation Optional | ✗                 | ✗                 |
| Other criteria relating to the conditions of employment                                  | ✗                 | ✓ Immediate Major | ✗                        | ✗                         | ✗                 | ✓ Immediate Major |
| Part-time / contract workers' rights   | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✓ Recommendation          | ✗                 | ✓ Immediate Major |
| Home-workers   | ✗                 | ✗                 | ✗                        | ✗                         | ✗                 | ✗                 |
| Subcontracted workers' rights  | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✓ Recommendation          | ✗                 | ✓ Immediate Major |
| <b>WORK AND LABOR RIGHTS: general principle</b>  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✓ Recommendation Optional | ✓ Immediate Major | ✗                 |
| Voluntary employment - No forced labor (ILO 29 & 105)                                    | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✓ Recommendation Optional | ✗                 | ✓ Immediate Major |
| Right to refuse overtime   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✓ Recommendation Optional | ✗                 | ✗                 |
| Overtime compensation required/specified   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✗                         | ✗                 | ✓ Immediate Major |
| Use of prison labor  | ✗                 | ✗                 | ✗                        | ✗                         | ✗                 | ✗                 |
| Template/format for terms of labour contracts  | ✓ Immediate Major | ✗                 | ✓ Immediate Deal-breaker | ✓ Recommendation          | ✗                 | ✓ Immediate Major |
| Migrant workers' employment and contract management                                      | ✗                 | ✗                 | ✗                        | ✗                         | ✗                 | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |   |                   |   |   |   |   |
|--|---|-------------------|---|---|---|---|
| STANDARD REQUIREMENTS  | KEY STANDARDS   |                   |   |   |   |   |
|  | ASC PANGASIOUS  | ASC SHRIMP        | GAA-BAP   | GLOBALG.A.P. AQUACULTURE  | BRC UK  | NATURLAND   |
| Illegal/excessive deductions or fees (incl. Recruitment fees)                            |  | ✓ Immediate Major | ✓ Immediate Deal-breaker  |  |    | ✓ Immediate Major   |
| Retention of workers' documentation (ID, passport)                                       | ✓ Immediate Major   | ✓ Immediate Major | ✓ Immediate Major   |  |    | ✓ Immediate Major   |
| Use of contracts in written form   | ✓ Immediate Major   | ✓ Immediate Major | ✓ Immediate Major   | ✓ Recommendation Optional   |    | ✓ Immediate Major   |
| Workers mobility and freedom of movement   | ✓ Immediate Major   | ✓ Immediate Major | ✓ Immediate Major   |  |    |    |
| Timely payment of wages  | ✓ Immediate Major   | ✓ Immediate Major |    | ✓ Recommendation Optional   |    | ✓ Immediate Major   |
| Minimum Wage   | ✓ Immediate Major   | ✓ Immediate Major | ✓ Immediate Deal-breaker  | ✓ Recommendation Optional   |    | ✓ Immediate Major   |
| Living Wage  | ✓ Immediate Major   | ✓ Immediate Major |    |  |    |    |
| Policies and procedures to address workers' grievances                                   | ✓ Immediate Major   | ✓ Immediate Major | ✓ Immediate Major   | ✓ Recommendation Optional   |  |  |
| <b>Labor Practices - Human Development and Social Dialogue</b>                           | <b>9/25</b>   | <b>13/25</b>      | <b>2/25</b>   | <b>12/25</b>  | <b>2/25</b>   | <b>7/25</b>   |
| Freedom of association (ILO 87)  | ✓ Immediate Major   | ✓ Immediate Major |  | ✓ Recommendation Optional   |  | ✓ Immediate Major   |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points  |                   |                   |                   |                             |                   |                   |
|---|-------------------|-------------------|-------------------|-----------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS   | KEY STANDARDS     |                   |                   |                             |                   |                   |
|   | ASC<br>PANGASIUS  | ASC<br>SHRIMP     | GAA-BAP           | GLOBALG.A.P.<br>AQUACULTURE | BRC<br>UK         | NATURLAND         |
| Collective Bargaining (ILO 98)  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Recommendation Optional   | ✗                 | ✓ Immediate Major |
| No discrimination at work (ILO 111)   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Recommendation Optional   | ✗                 | ✓ Immediate Major |
| Non-discrimination of persons with disabilities   | ✓ Immediate Major | ✗                 | ✗                 | ✗                           | ✗                 | ✗                 |
| Workers' access to training programs  | ✗                 | ✓ Immediate Major | ✗                 | ✓ Immediate Minor           | ✓ Immediate Major | ✓ Immediate Major |
| Joint committees and unions   | ✗                 | ✗                 | ✗                 | ✓ Immediate Major           | ✗                 | ✗                 |
| Formation of workers representation in countries where it is not supported by legislation | ✓ Immediate Major | ✗                 | ✗                 | ✓ Recommendation            | ✗                 | ✗                 |
| Workers awareness of procedures and best practices  | ✗                 | ✓ Immediate Major | ✗                 | ✓ Recommendation Optional   | ✓ Immediate Major | ✗                 |
| Policies and procedures to monitor workers' satisfaction                                  | ✗                 | ✗                 | ✗                 | ✗                           | ✗                 | ✗                 |
| Other criteria relating to empowerment of workers   | ✓ Immediate Major | ✗                 | ✗                 | ✓ Recommendation            | ✗                 | ✗                 |
| <b>GENDER ISSUES:</b> general principle   | ✓ Immediate Major | ✓ Immediate       | ✗                 | ✓ Recommendation Optional   | ✗                 | ✓ Immediate Major |
| Gender policies and best practices  | ✗                 | ✓ Immediate Major | ✗                 | ✓ Recommendation Optional   | ✗                 | ✗                 |



| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |             |                              |             |                   |
|--|-------------------|-------------------|-------------|------------------------------|-------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |             |                              |             |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP     | GLOBALG.A.P. AQUACULTURE     | BRC UK      | NATURLAND         |
| Women's access to health and safety services   | ✗                 | ✗                 | ✗           | ✓<br>Recommendation Optional | ✗           | ✓ Immediate Major |
| Gender considerations in impacts and risks assessment of production                      | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✗                            | ✗           | ✗                 |
| Gender considerations in stakeholder engagement process                                  | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✗                            | ✗           | ✗                 |
| Women's rights at work   | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✗                            | ✗           | ✗                 |
| Maternity/paternity leave days   | ✗                 | ✓ < 1 Yr. Minor   | ✗           | ✗                            | ✗           | ✗                 |
| Non-discrimination based on gender   | ✓ < 1 Yr. Minor   | ✓ < 1 Yr. Minor   | ✗           | ✓<br>Recommendation          | ✗           | ✓ Immediate Major |
| Participation of women/minorities in management  | ✗                 | ✗                 | ✗           | ✗                            | ✗           | ✗                 |
| <b>GENDER POLICIES AT WORK - general principles</b>                                      | ✓ Immediate Major | ✓ Immediate Major | ✗           | ✗                            | ✗           | ✗                 |
| Family-friendly policies to increase the labour force participation of women             | ✗                 | ✗                 | ✗           | ✗                            | ✗           | ✗                 |
| Upgrading the status of and wages for traditional areas of female work                   | ✗                 | ✗                 | ✗           | ✗                            | ✗           | ✗                 |
| Development assistance policies which promote the economic role of women                 | ✗                 | ✗                 | ✗           | ✗                            | ✗           | ✗                 |
| Incentives to women to develop their careers (e.g. specific training)                    | ✗                 | ✗                 | ✗           | ✗                            | ✗           | ✗                 |
| Increased access to finance and support services for women entrepreneurs                 | ✗                 | ✗                 | ✗           | ✗                            | ✗           | ✗                 |
| <b>MANAGEMENT</b>  | <b>13/49</b>      | <b>20/49</b>      | <b>8/49</b> | <b>17/49</b>                 | <b>8/49</b> | <b>8/49</b>       |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                          |                   |                   |
|--|-------------------|-------------------|-------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| <b>Economic Viability</b>  | 0/6               | 0/6               | 0/6               | 3/6                      | 1/6               | 2/6               |
| <b>ECONOMIC VIABILITY: general principle</b>   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Fair competition   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Production efficiency / productivity   | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Diversification of business operations   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Long term sustainability management plan / continuous improvement                        | ✗                 | ✗                 | ✗                 | ✓ Immediate Minor        | ✗                 | ✓ Immediate Major |
| ADMINISTRATION AND MANAGEMENT: general principle   | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| <b>Sustainability Management</b>   | 10/22             | 14/22             | 7/22              | 12/22                    | 5/22              | 2/22              |
| <b>ENVIRONMENT AND SOCIAL (E&amp;S) MANAGEMENT SYSTEMS: general principles</b>           | ✗                 | ✗                 | ✗                 | ✗                        | ✓ Immediate Major | ✗                 |
| Staff training on sustainability issues  | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Assessment of water usage  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate              | ✗                 | ✗                 |
| Assessment of risks and impacts on water levels of water resources used                  | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate              | ✗                 | ✗                 |
| Assessment of risks and impacts on water quality of water resources used                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Environmental risks and impacts  | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✓ Immediate              | ✗                 | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                           |                   |           |
|--|-------------------|-------------------|-------------------|---------------------------|-------------------|-----------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                           |                   |           |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE  | BRC UK            | NATURLAND |
| Assessment of soil condition   | ✗                 | ✓ Immediate Major | ✗                 | ✓ Immediate Major         | ✗                 | ✗         |
| Assessment of biodiversity risks and impacts   | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major         | ✗                 | ✗         |
| Environment and social risks mitigation and performance improvement                      | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                 | ✓ Immediate Minor         | ✗                 | ✗         |
| Organizational capacity for environmental and social (E&S) management                    | ✗                 | ✓ < 1 Yr. Minor   | ✗                 | ✓ Recommendation Optional | ✗                 | ✗         |
| Effectiveness of E&S management systems  | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                 | ✗                         | ✗                 | ✗         |
| Reporting on and making publicly available E&S management systems                        | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                 | ✗                         | ✗                 | ✗         |
| Emergency response plans or strategies to climate related hazards                        | ✗                 | ✗                 | ✗                 | ✗                         | ✓ Immediate Major | ✗         |
| Staff or worker evacuation safety procedures   | ✗                 | ✗                 | ✗                 | ✗                         | ✗                 | ✗         |
| Stakeholder analysis and engagement planning in E&S management systems                   | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                 | ✗                         | ✗                 | ✗         |
| Verification of mandatory certificates and permits                                       | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✗                         | ✓ Immediate Major | ✗         |
| Occupation Health and Safety (OHS) management system                                     | ✗                 | ✗                 | ✗                 | ✓ Immediate Major         | ✗                 | ✗         |
| Corporate Social Responsibility policy   | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                         | ✗                 | ✗         |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                          |                   |                   |
|--|-------------------|-------------------|-------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| Internal Control System  | ✗                 | ✗                 | ✗                 | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |
| Respect of natural or cultural heritage  | ✗                 | ✓ < 1 Yr. Minor   | ✗                 | ✗                        | ✗                 | ✗                 |
| Provision of access for persons or workers with special needs                            | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Locally appropriate principles of sustainable construction                               | ✗                 | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✗                 |
| <b>Supply Chain Responsibilities</b>   | <b>3/21</b>       | <b>6/21</b>       | <b>1/21</b>       | <b>2/21</b>              | <b>3/21</b>       | <b>6/21</b>       |
| Market data and analysis   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✓ Immediate Major |
| Supply chain stakeholders mapping  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Access to financial services (payment, credit, savings, subsidies& )                     | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Use of price premium   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Minimum price guarantees   | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Setting-up contracts with traders  | ✗                 | ✓ Immediate Major | ✗                 | ✗                        | ✗                 | ✗                 |
| Supply chain responsibility (beyond primary production)                                  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Advance payments requests  | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Distribution networks and access to markets / buyers                                     | ✗                 | ✗                 | ✗                 | ✗                        | ✗                 | ✗                 |
| Access and selection of inputs and varieties (traditional versus improved/engineered)    | ✓ Immediate Major | ✓ Immediate Major | ✗                 | ✗                        | ✗                 | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                          |                          |                   |                   |
|--|-------------------|-------------------|--------------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                          |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| Traceability of inputs / varieties and records of materials used                         | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✓ Immediate Major        | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |
| Access to technology and innovation  | ✗                 | ✗                 |                          |                          | ✗                 | ✗                 |
| Infrastructure (transport, storage, testing laboratories& )                              | ✗                 | ✗                 | ✗                        | ✗                        | ✓ Immediate Major | ✗                 |
| Responsible intensification of productivity  | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                        | ✗                        | ✗                 | ✓ Immediate Major |
| Monitoring / measure of customer / client satisfaction                                   | ✗                 | ✗                 | ✗                        | ✗                        | ✓ Immediate Major | ✗                 |
| Policies encouraging clients, staff and suppliers to consider sustainability issues      | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✗                 |
| Fair marketing based on factual and unbiased information                                 | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✓ Immediate Major |
| Group organization and management (e.g. cooperatives)                                    | ✗                 | ✓ < 1 Yr. Minor   | ✗                        | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Setting up specific delivery times for suppliers and sanctions for late delivery         | ✗                 | ✓ < 1 Yr. Minor   | ✗                        | ✗                        | ✗                 | ✗                 |
| Subcontracting (disclosure of, prior approval, auditor's access to)                      | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✗                 |
| Criteria for local micro businesses/incubation/facilitation                              | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✗                 |
| <b>QUALITY</b>   | <b>13/86</b>      | <b>10/86</b>      | <b>63/86</b>             | <b>21/86</b>             | <b>21/86</b>      | <b>21/86</b>      |
| <b>Product / Service Quality Management</b>  | <b>8/25</b>       | <b>6/25</b>       | <b>14/25</b>             | <b>8/25</b>              | <b>20/25</b>      | <b>10/25</b>      |
| Quality policy   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                          |                          |                   |                   |
|--|-------------------|-------------------|--------------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                          |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| Quality: compliance to national and international legislation                            | ✗                 | ✓ Immediate Major | ✗                        | ✗                        | ✓ Immediate Major | ✓ Immediate Major |
| Quality: risk assessment and hazard control procedures                                   | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗                        | ✓ Immediate Major | ✗                 |
| Quality: documentation and monitoring procedures   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✓ Immediate Major |
| Product quality technical requirements   | ✗                 | ✗                 | ✗                        | ✗                        | ✓ Immediate Major | ✗                 |
| Product safety (excl. food safety)   | ✗                 | ✓ < 1 Yr. Minor   | ✗                        | ✗                        | ✗                 | ✗                 |
| Testing quality of inputs to production  | ✗                 | ✗                 | ✗                        | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Testing quality of semi-final products   | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✗                 |
| Testing quality of final products  | ✗                 | ✗                 | ✗                        | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Using organic inputs to production   | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✓ Immediate Major |
| Energy used during manufacturing processes   | ✗                 | ✗                 | ✗                        | ✗                        | ✗                 | ✗                 |
| Energy efficiency of production process  | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗                        | ✗                 | ✓ Immediate Major |
| Products packaging and transportation policy   | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |
| Products storage facilities - excl. Food products  | ✗                 | ✗                 | ✗                        | ✗                        | ✓ Immediate Major | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |            |                          |                          |                   |                   |
|--|-------------------|------------|--------------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |            |                          |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| Quality Management - Quality Manual available to the staff/workers                       | ✗                 | ✗          | ✓ Immediate Major        | ✗                        | ✓ Immediate Major | ✗                 |
| Quality Management - Control process documented  | ✓ Immediate Major | ✗          | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Quality Management - Traceability and records-keeping                                    | ✓ Immediate Major | ✗          | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✓ Immediate Major |
| Quality Management - Objectives established and monitored                                | ✓ Immediate Major | ✗          | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Quality Management - Customer focus & performance indicators                             | ✗                 | ✗          | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Quality Management - Complaint management system   | ✗                 | ✗          | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Quality Management - Complaints records keeping  | ✗                 | ✗          | ✓ Immediate Deal-breaker | ✓ Immediate              | ✓ Immediate Major | ✗                 |
| Quality Management - Periodic review of QMS by management                                | ✓ Immediate Major | ✗          | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Quality Management - Internal audit system in place                                      | ✗                 | ✗          | ✓ Immediate Deal-breaker | ✓ Immediate Minor        | ✓ Immediate Major | ✗                 |
| Quality Management - Monitoring and management of incidences                             | ✗                 | ✗          | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✓ Immediate Major |
| Quality Management - Corrective actions documented                                       | ✗                 | ✗          | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |
| <b>Non-Food Manufactured Products Technical Specifications</b>                           | 0/1               | 0/1        | 1/1                      | 0/1                      | 1/1               | 0/1               |
| Quality Management - Purchasing and supplier approval system in place                    | ✗                 | ✗          | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                          |                          |                   |                   |
|--|-------------------|-------------------|--------------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                          |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| <b>Food/Feed Management Systems</b>  | <b>5/60</b>       | <b>4/60</b>       | <b>48/60</b>             | <b>29/60</b>             | <b>53/60</b>      | <b>11/60</b>      |
| Determination of processes, their interactions and critical elements                     | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate              | ✓ Immediate Major | ✓ Immediate Major |
| Establishment and implementation of Prerequisite Programme                               | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Establishment and implementation of HACCP plan   | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Recommendation         | ✓ Immediate Major | ✗                 |
| Compliance to relevant legal national and international food/feed safety requirements    | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Raw material, intermediate & final products specifications                               | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Documented policy and related food/feed safety objectives                                | ✓ Immediate Major | ✗                 | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✓ Immediate Major |
| Documented required procedures and instructions on food/feed safety                      | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Recommendation Major   | ✓ Immediate Major | ✗                 |
| Other documents to ensure effective operation of food/feed Management system             | ✗                 | ✗                 | ✗                        | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Communication policy towards workers on the importance of food/feed safety assurance     | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Establishment of multidisciplinary HACCP team  | ✗                 | ✗                 | ✗                        | ✗                        | ✓ Immediate Major | ✗                 |
| Procedure for managing complaints  | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |



| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |             |                          |                          |                   |                   |
|--|-------------------|-------------|--------------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |             |                          |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP  | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| Established and documented training and education about food/feed safety management      | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Facilities for personnel hygiene   | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Protective clothing  | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Medical screening  | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Sites are fit for safe food/feed production  | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✓ Immediate Major |
| Site location / Clear identification of buildings, production and storage areas          | ✓ Immediate Major | ✓ Immediate | ✗                        | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Eating/drinking facilities separate from production areas                                | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Controlled access to the site with clearly communicated hygiene instructions             | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Storage conditions, hygiene requirements and verification processes                      | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✓ Immediate Major |
| Storage of chemicals incl. storage facilities, accessibility and handling by personnel   | ✗                 | ✗           | ✗                        | ✗                        | ✗                 | ✗                 |
| Water supply volume, quality and safety assured  |                   |             | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Definition and documented implementation of a proper and complete maintenance program    | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Proper and complete cleaning programme for all sites, buildings, areas and equipment     | ✗                 | ✗           | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points  |                |            |                          |                           |                   |                   |
|---|----------------|------------|--------------------------|---------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS   | KEY STANDARDS  |            |                          |                           |                   |                   |
|   | ASC PANGASIOUS | ASC SHRIMP | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE  | BRC UK            | NATURLAND         |
| Food harvesting/processing utensils cleaned, disinfected, sanitized, maintained and protected from contamination                          | ✗              | ✗          | ✓ Immediate Deal-breaker | ✓ Immediate Major         | ✗                 | ✓ Immediate Major |
| Suitable and lawful use of cleaning and/or sanitizing agents for food/feed safety   | ✗              | ✗          | ✓ Immediate Deal-breaker | ✓ Immediate Major         | ✓ Immediate Major | ✗                 |
| Implementation of a proper and complete pest control programme  | ✗              | ✗          | ✓ Immediate Deal-breaker | ✓ Immediate Major         | ✓ Immediate Major | ✗                 |
| Qualification of internal and external people assured   | ✗              | ✗          | ✓ Immediate Deal-breaker | ✗                         | ✓ Immediate Major | ✗                 |
| Waste management system   | ✗              | ✗          | ✗                        | ✓ Immediate Major         | ✓ Immediate Major | ✗                 |
| Waste water drainage, discharge, re-using, recycling processes  | ✗              | ✗          | ✓ Immediate Deal-breaker | ✓ Recommendation Optional | ✓ Immediate Major | ✗                 |
| Product transportation procedures   | ✗              | ✗          | ✓ Immediate Deal-breaker | ✓ Immediate Major         | ✓ Immediate Major | ✓ Immediate Major |
| Assurance that risks related to harvesting, handling, processing, transportation and packaging of food/feed are identified and controlled | ✗              | ✗          | ✗                        | ✓ Immediate Major         | ✓ Immediate Major | ✗                 |
| Harvested/semi-processed products packaging protection against contamination  | ✗              | ✗          | ✗                        | ✗                         | ✗                 | ✗                 |
| Food production contamination risks - Glass and wood foreign bodies inspection  | ✗              | ✗          | ✓ Immediate Deal-breaker | ✗                         | ✓ Immediate Major | ✗                 |
| Food production contamination risks - Water contamination   | ✗              | ✗          | ✓ Immediate Deal-breaker | ✗                         | ✓ Immediate Major | ✓ Immediate Major |
| Food production contamination risks - foreign body  | ✗              | ✗          | ✓ Immediate Deal-breaker | ✗                         | ✗                 | ✗                 |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points        |                   |                   |                          |                          |                   |                   |
|---|-------------------|-------------------|--------------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS   | KEY STANDARDS     |                   |                          |                          |                   |                   |
|   | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| Food products handling: general policy  | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✗                        | ✗                 | ✗                 |
| General principle about chilling, storage and transportation                                    | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |
| GMO handling procedures   | ✗                 | ✗                 | ✗                        | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |
| Allergen handling procedures  | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗                 |
| Identity preservation model   | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Segregation model   | ✗                 | ✗                 | ✗                        | ✓ Immediate              | ✓ Immediate Major | ✗                 |
| Mass balance model  | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Procedures to ensure that formulation of products does not introduce any food/feed safety risks | ✗                 | ✗                 | ✗                        | ✗                        | ✓ Immediate Major | ✗                 |
| Food / feed production process & control - Health and nutrition requirements                    | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✗                        | ✗                 | ✗                 |
| Traceability system established and monitored   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Record information on received products and suppliers   | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Product recall policy   | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |
| Procedure for management and correction of non-conformities                                     | ✗                 | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗                 |





| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                |             |                          |                          |                   |             |
|--|----------------|-------------|--------------------------|--------------------------|-------------------|-------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS  |             |                          |                          |                   |             |
|  | ASC PANGASIOUS | ASC SHRIMP  | GAA-BAP                  | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND   |
| All potential hazards identified   | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Determination of CCPs  | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Critical limits established  | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Establishment of monitoring procedures for CCPs  | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Establishment of corrective actions  | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Verification of the HACCP plan including frequency                                       | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Records to demonstrate hazard control  | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Sampling procedures for incoming goods, finished products and products during production | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Food production process & control - Product analysis and testing                         | ✗              | ✗           | ✓ Immediate Deal-breaker | ✗                        | ✓ Immediate Major | ✗           |
| Food production process & control - Quantity control procedures                          | ✗              | ✗           | ✗                        | ✓ Immediate Major        | ✓ Immediate Major | ✗           |
| Maintenance and calibration of measuring equipment                                       | ✗              | ✗           | ✓ Immediate Deal-breaker | ✓ Immediate Major        | ✓ Immediate Major | ✗           |
| <b>ETHICS</b>  | <b>5/21</b>    | <b>3/21</b> | <b>5/21</b>              | <b>4/21</b>              | <b>2/21</b>       | <b>3/21</b> |
| <b>Ethics: Anti-Corruption And Bribery Principles And Criteria</b>                       | <b>1/16</b>    | <b>0/16</b> | <b>1/16</b>              | <b>1/16</b>              | <b>1/16</b>       | <b>0/16</b> |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                |            |         |                          |        |           |
|--|----------------|------------|---------|--------------------------|--------|-----------|
| STANDARD REQUIREMENTS  | KEY STANDARDS  |            |         |                          |        |           |
|  | ASC PANGASIOUS | ASC SHRIMP | GAA-BAP | GLOBALG.A.P. AQUACULTURE | BRC UK | NATURLAND |
| Ethics - General principle   | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Corruption and bribery prevention  | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Anti-bribery requirements for political contributions                                    | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Anti-bribery requirements for charitable contributions and sponsorships                  | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Anti-bribery requirements for facilitation of payments                                   | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Anti-bribery requirements for gifts, hospitality and expenses                            | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Anti-bribery requirements for staff/workers awareness                                    | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Anti-bribery requirements for internal controls, records keeping, M&E                    | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Anti-bribery requirements for external reporting and communication                       | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Facilitation of audit implementation and auditors mobility                               | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Requirements related to auditors' access to necessary sites or documentation             | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Requirements to monitor and follow-up on bribery or corruption allegations               | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Requirements to monitor and follow-up on bribery or corruption allegations               | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Requirements relating to intellectual property or customer information protection        | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |
| Transparency of audit findings   | ☒              | ☒          | ☒       | ☒                        | ☒      | ☒         |

| Major VSS in shrimps and pangasius: Comparison of Principles and Critical Control Points |                   |                   |                   |                          |                   |                   |
|--|-------------------|-------------------|-------------------|--------------------------|-------------------|-------------------|
| STANDARD REQUIREMENTS  | KEY STANDARDS     |                   |                   |                          |                   |                   |
|  | ASC PANGASIOUS    | ASC SHRIMP        | GAA-BAP           | GLOBALG.A.P. AQUACULTURE | BRC UK            | NATURLAND         |
| Verification of business license and other mandatory certificates                        | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✓ Immediate              | ✓ Immediate       | ✗                 |
| <b>Ethics: Compliance To National, Regional And International Legislation</b>            | <b>4/5</b>        | <b>3/5</b>        | <b>4/5</b>        | <b>3/5</b>               | <b>1/5</b>        | <b>3/5</b>        |
| Compliance to social and labour conventions and standards                                | ✗                 | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major | ✓ Immediate Major |
| Compliance to national and regional environmental standards and regulations              | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Respect of cultural and religion rights  | ✓ Immediate Major | ✓ < 1 Yr. Minor   | ✗                 | ✗                        | ✗                 | ✗                 |
| Compliance with local social and environmental laws and regulations                      | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✓ Immediate Major        | ✗                 | ✓ Immediate Major |
| Compliance with local zoning and protected or heritage area requirements                 | ✓ Immediate Major | ✗                 | ✓ Immediate Major | ✗                        | ✗                 | ✗                 |

## ANNEX D

### MOST DEMANDED VSS FOR TUNA / WILD CAPTURE (41 standards registered in ITC)

| Major VSS in tuna: Comparison of Principles and Critical Control Points |  |   |   |   |
|---|--|---|---|---|
| REQUIREMENTS  | KEY STANDARDS  |   |   |   |
|   | BSCI   | MSC   | FRIEND OF THE SEA FOS   | NATURLAND WILDFISH  |
|   |  |  |  |  |
| <b>OVERALL</b>  | <b>175/460</b>   | <b>143/460</b>  | <b>125/460</b>  | <b>164/407</b>  |
| <b>ENVIRONMENT</b>  | <b>59/167</b>  | <b>70/167</b>   | <b>67/167</b>   | <b>78/167</b>   |
| <b>FOREST</b>   | <b>0/1</b>   | <b>0/1</b>  | <b>0/1</b>  | <b>1/1</b>  |
| Other criteria relating to forestry cons                                | ✗  | ✗   | ✗   | ✓ Immediate Major   |
| <b>INPUTS</b>   | <b>5/13</b>  | <b>0/13</b>   | <b>2/13</b>   | <b>11/13</b>  |
| Chemicals / Natural organic inputs: general principle                   | ✗  | ✗   | ✓ Immediate Major   | ✗   |
| List of prohibited chemicals  | ✗  | ✗   | ✓ Immediate Major   | ✗   |
| Chemicals and related materials: general principle                      | ✓ < 1 Yr. Minor  | ✗   | ✗   | ✓ Immediate Deal-breaker  |
| Agrochemicals (fertilizers, pesticides, soil fumigants...)              | ✗  | ✗   | ✗   | ✓ Immediate Deal-breaker  |

| Major VSS in tuna: Comparison of Principles and Critical Control Points   |                 |                   |                          |                          |
|---|-----------------|-------------------|--------------------------|--------------------------|
| REQUIREMENTS  | KEY STANDARDS   |                   |                          |                          |
|   | BSCI            | MSC               | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH    |
| Chemicals storage and labelling   | ✓ < 1 Yr. Minor | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| <b>ORGANIC NATURAL INPUTS: general principle</b>                          | ✗               | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| Equipment / training  | ✗               | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| Chemicals: selective & targeted application                               | ✓ < 1 Yr. Minor | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| Training on chemicals handling and exposure                               | ✓ < 1 Yr. Minor | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| Chemical substances storage/disposal/waste/labelling                      | ✓ < 1 Yr. Minor | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| GMOs / genetically modified varieties prohibition                         | ✗               | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| GMOs / genetically modified varieties management & monitoring             | ✗               | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| Genetically modified crops and products traceability and labelling        | ✗               | ✗                 | ✗                        | ✓ Immediate Deal-breaker |
| <b>BIODIVERSITY</b>   | 1/23            | 18/23             | 10/23                    | 14/23                    |
| <b>BIODIVERSITY: general principle</b>                                    | ✗               | ✓ Immediate Major | ✗                        | ✓ Immediate Major        |
| Criteria to ensure adherence to international conventions on biodiversity | ✗               | ✓ Immediate Major | ✓ Immediate Major        | ✗                        |
| Sustainable management and use of natural resources                       | ✗               | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major        |
| Habitat/eco-system restoration/ rehabilitation                            | ✗               | ✓ Immediate Major | ✗                        | ✗                        |



| Major VSS in tuna: Comparison of Principles and Critical Control Points                 |                   |                   |                           |                       |
|---|-------------------|-------------------|---------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS     |                   |                           |                       |
|   | BSCI              | MSC               | FRIEND OF THE SEA<br>FOS  | NATURLAND<br>WILDFISH |
| Impact assessment policy for new production   | ✗                 | ✗                 | ✗                         | ✓ Immediate Major     |
| Protection of rare and threatened species and their habitats                            | ✗                 | ✓ Immediate Major | ✗                         | ✗                     |
| Impact assessment for ongoing production / harvesting                                   | ✗                 | ✓ Immediate Major | ✓ Immediate Major         | ✗                     |
| Requirements for net positive gain in biodiversity                                      | ✗                 | ✓ Immediate Major | ✗                         | ✗                     |
| Requirements for no net loss in biodiversity  | ✗                 | ✓ < 1 Yr. Major   | ✓ Immediate Major         | ✗                     |
| <b>WILDLIFE: general principle</b>  | ✗                 | ✓ Immediate Major | ✓ Immediate Major         | ✓ Immediate Major     |
| Use of wildlife species and resources   | ✗                 | ✓ Immediate Major | ✓ Immediate Major         | ✓ Immediate Major     |
| Specific criteria relating to rare, threatened or endangered wildlife species           | ✗                 | ✓ < 1 Yr. Minor   | ✓ Immediate Major         | ✗                     |
| Impacts on wildlife populations   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major         | ✓ Immediate Major     |
| Criteria related to maintaining or protecting rare, threatened or endangered ecosystems | ✗                 | ✗                 | ✗                         | ✓ Immediate Major     |
| Legally protected and internationally recognized areas for their biodiversity           | ✗                 | ✗                 | ✓ Immediate Major         | ✗                     |
| Risks and impacts on ecosystem services   | ✗                 | ✓ Immediate Major | ✗                         | ✓ Immediate Major     |
| Biotechnology use   | ✗                 | ✗                 | ✗                         | ✓ Immediate Major     |
| Human settlements in or close to production areas                                       | ✗                 | ✗                 | ✗                         | ✓ Immediate Major     |
| Other criteria relating to biodiversity   | ✗                 | ✓ Immediate Major | ✓ Recommendation Optional | ✗                     |
| Criteria related to sustainable harvesting  | ✗                 | ✓ Immediate Major | ✗                         | ✓ Immediate Major     |

| Major VSS in tuna: Comparison of Principles and Critical Control Points  |               |                   |                          |                       |
|--|---------------|-------------------|--------------------------|-----------------------|
| REQUIREMENTS   | KEY STANDARDS |                   |                          |                       |
|  | BSCI          | MSC               | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Wild catch fisheries: procedures regarding management and reduction of discards - non target species                       | ✗             | ✓ Immediate Major | ✗                        | ✓ Immediate Major     |
| Specific criteria for wild catch fisheries: prohibition of destructive fishing methods such as dynamite and poison         | ✗             | ✓ Immediate Major | ✗                        | ✓ Immediate Major     |
| Wild catch fisheries: sustainable exploitation of marine resources including restoration of overfished and depleted stocks | ✗             | ✓ Immediate Major | ✗                        | ✓ Immediate Major     |
| <b>LIVESTOCK</b>   | <b>0/2</b>    | <b>0/2</b>        | <b>2/2</b>               | <b>0/2</b>            |
| <b>ANIMALS - LIVESTOCK: general principle</b>  | ✗             | ✗                 | ✓ Immediate Major        | ✗                     |
| Breeding   | ✗             | ✗                 | ✓ Immediate Major        | ✗                     |
| <b>WASTE</b>   | <b>4/12</b>   | <b>0/12</b>       | <b>5/12</b>              | <b>7/12</b>           |
| <b>WASTE MANAGEMENT: general principle</b>   | ✓ < 1 Yr.     | ✗                 | ✓ Immediate Major        | ✓ Immediate Major     |
| Treatment and use of solid waste   | ✗             | ✗                 | ✓ Immediate Major        | ✗                     |
| Rating to reducing solid waste volumes   | ✗             | ✗                 | ✓ Immediate Major        | ✓ Immediate           |
| Monitoring and measuring waste toxicity  | ✗             | ✗                 | ✗                        | ✗                     |
| Non-solid waste  | ✗             | ✗                 | ✓ Immediate Major        | ✗                     |
| Criteria related to waste segregation  | ✓ < 1 Yr.     | ✗                 | ✗                        | ✗                     |
| Run-off of waste chemicals, mineral and organic substances   | ✗             | ✗                 | ✗                        | ✓ Recommendation      |
| Composting   | ✗             | ✗                 | ✗                        | ✓ Recommendation      |

| Major VSS in tuna: Comparison of Principles and Critical Control Points         |                   |                   |                          |                           |
|---|-------------------|-------------------|--------------------------|---------------------------|
| REQUIREMENTS  | KEY STANDARDS     |                   |                          |                           |
|   | BSCI              | MSC               | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH     |
| Waste disposal (incl. solid waste, non-solid waste, hazardous waste)            | ✓ < 1 Yr.         | ✗                 | ✓ Immediate Major        | ✗                         |
| Waste elimination through the use of fire                                       | ✓ < 1 Yr.         | ✗                 | ✗                        | ✓ Immediate Major         |
| Avoidance of uncontrolled waste landfilling                                     | ✗                 | ✗                 | ✗                        | ✓ Immediate Major         |
| Environmentally friendly purchasing policy (building materials and consumables) | ✗                 | ✗                 | ✗                        | ✓ Immediate Major         |
| <b>WATER</b>  | <b>4/4</b>        | <b>3/4</b>        | <b>2/4</b>               | <b>4/4</b>                |
| <b>WATER USE &amp; MANAGEMENT: general principle</b>                            | ✓ < 1 Yr.         | ✗                 | ✗                        | ✓ Immediate Major         |
| Wastewater management / treatment   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate               |
| Water contamination / pollution   | ✓ Immediate Major | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major         |
| Transboundary effects of water pollution  | ✓ Immediate Major | ✓ Immediate Major | ✗                        | ✓ Immediate Major         |
| <b>ENERGY</b>   | <b>0/4</b>        | <b>0/4</b>        | <b>1/4</b>               | <b>4/4</b>                |
| <b>ENERGY USE &amp; MANAGEMENT: general principle</b>                           | ✗                 | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         |
| Reduce use of energy resources  | ✗                 | ✗                 | ✗                        | ✓ Immediate Major         |
| Use of alternative energies including solar, wind, etc                          | ✗                 | ✗                 | ✗                        | ✓ Recommendation Optional |
| Other criteria related to energy consumption and management                     | ✗                 | ✗                 | ✗                        | ✓ Recommendation Optional |
| <b>CLIMATE-CARBON</b>   | <b>0/2</b>        | <b>0/2</b>        | <b>2/2</b>               | <b>0/2</b>                |

| Major VSS in tuna: Comparison of Principles and Critical Control Points |                 |                   |                           |                           |
|---|-----------------|-------------------|---------------------------|---------------------------|
| REQUIREMENTS  | KEY STANDARDS   |                   |                           |                           |
|   | BSCI            | MSC               | FRIEND OF THE SEA<br>FOS  | NATURLAND<br>WILDFISH     |
| <b>CARBON POLICIES: general principle</b>                               | ✗               | ✗                 | ✓ Recommendation Optional | ✗                         |
| Monitoring/reducing non-carbon  | ✗               | ✗                 | ✓ Recommendation Optional | ✗                         |
| <b>SOCIAL</b>   | <b>99/112</b>   | <b>60/112</b>     | <b>51/112</b>             | <b>43/112</b>             |
| <b>Human Rights And Local Communities</b>                               | <b>5/14</b>     | <b>4/14</b>       | <b>8/14</b>               | <b>7/14</b>               |
| <b>HUMAN RIGHTS &amp; LOCAL COMMUNITIES: general principle</b>          | ✓ < 1 Yr. Major | ✗                 | ✓ Immediate Major         | ✓ Immediate Major         |
| Basic human rights and local communities engagement                     | ✓ Immediate     | ✗                 | ✓ Immediate Major         | ✗                         |
| Promotion/enhancement of education                                      | ✗               | ✗                 | ✓ Immediate Major         | ✗                         |
| Promotion/enhancement of medical care services                          | ✗               | ✗                 | ✓ Immediate Major         | ✗                         |
| Promotion/enhancement of housing and sanitary facilities                | ✗               | ✗                 | ✓ Immediate Major         | ✓ Immediate Minor         |
| Rights of indigenous peoples (ILO 169)                                  | ✗               | ✓ < 1 Yr. Major   | ✓ Immediate Major         | ✓ Immediate Major         |
| Minority rights   | ✗               | ✗                 | ✗                         | ✓ Immediate Minor         |
| Protection of minority rights and marginalized groups                   | ✗               | ✗                 | ✗                         | ✓ Immediate Minor         |
| Engagement & consultation with local communities                        | ✗               | ✓ Immediate Major | ✓ Immediate Major         | ✗                         |
| Land title and use rights   | ✗               | ✗                 | ✗                         | ✓ Immediate Minor         |
| Purchasing local materials, goods, products and services                | ✗               | ✗                 | ✗                         | ✓ Recommendation Optional |

| Major VSS in tuna: Comparison of Principles and Critical Control Points |                          |             |                          |                       |
|---|--------------------------|-------------|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS            |             |                          |                       |
|   | BSCI                     | MSC         | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Grievance mechanisms for communities                                    | ✓ < 1 Yr. Major          | ✗           | ✗                        | ✗                     |
| Impact assessment on health, safety and security of local activities    | ✓ < 1 Yr. Major          | ✗           | ✓ Immediate Major        | ✗                     |
| Local communities access to livelihoods                                 | ✓ < 1 Yr. Major          | ✗           | ✗                        | ✗                     |
| <b>Labor Practices - Conditions Of Work and Social Protection</b>       | <b>24/32</b>             | <b>0/32</b> | <b>12/32</b>             | <b>9/32</b>           |
| <b>CONDITIONS OF WORK: general principle</b>                            | ✓ Immediate Major        | ✗           | ✗                        | ✓ Immediate Major     |
| Sexual exploitation / harassment  | ✓ Immediate Deal-breaker | ✗           | ✓ Immediate Major        | ✗                     |
| Safety at work (ILO 184)  | ✓ < 1 Yr. Major          | ✗           | ✗                        | ✓ Immediate Major     |
| Safety at work - legal compliance                                       | ✓ < 1 Yr. Major          | ✗           | ✓ Immediate Major        | ✗                     |
| Electrical equipments safety  | ✓ < 1 Yr. Major          | ✗           | ✗                        | ✗                     |
| Verification and maintenance of buildings safety                        | ✗                        | ✗           | ✗                        | ✗                     |
| Fire preparedness (drills, equipment, signs)                            | ✓ Immediate Deal-breaker | ✗           | ✗                        | ✗                     |
| Emergency exits and evacuation procedures                               | ✓ Immediate Deal-breaker | ✗           | ✗                        | ✗                     |
| Publicly available evacuation procedures                                | ✓ Immediate Major        | ✗           | ✗                        | ✗                     |
| Regular and scheduled emergency exit maintenance                        | ✗                        | ✗           | ✗                        | ✗                     |
| Training on safety issues   | ✓ < 1 Yr. Major          | ✗           | ✓ Immediate Major        | ✓ Immediate Major     |

| Major VSS in tuna: Comparison of Principles and Critical Control Points |                              |     |                          |                       |
|---|------------------------------|-----|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS                |     |                          |                       |
|   | BSCI                         | MSC | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Occupational health and safety, as defined in IL                        | ✗                            | ✗   | ✓ Immediate Major        | ✗                     |
| Workplace safety  | ✓ Immediate Major            | ✗   | ✓ Immediate Major        | ✓ Immediate Major     |
| Safety equipment and personal protective equipment                      | ✗                            | ✗   | ✗                        | ✗                     |
| Machinery / equipment safety  | ✗                            | ✗   | ✗                        | ✗                     |
| Emergency first aid kits  | ✗                            | ✗   | ✗                        | ✗                     |
| Safety procedures for handling chemicals                                | ✓ < 1 Yr. Major              | ✗   | ✗                        | ✓ Immediate Major     |
| Monitoring of accidents records   | ✓ < 1 Yr. Major              | ✗   | ✓ Immediate Major        | ✗                     |
| Training of workers on procedures to deal with accidents                | ✓ < 1 Yr. Major              | ✗   | ✓ Immediate Major        | ✓ Immediate Major     |
| Healthy work conditions   | ✓ < 1 Yr. Major              | ✗   | ✓ Immediate Major        | ✗                     |
| Workers' access to safe drinking water                                  | ✓ < 1 Yr. Major              | ✗   | ✓ Immediate Major        | ✓ Immediate Major     |
| Workers' access to decent sanitary facilities etc.)                     | ✓ < 1 Yr. Major              | ✗   | ✓ Immediate Major        | ✗                     |
| Workplace conditions (air quality, lighting, noise )                    | ✓ < 1 Yr. Major              | ✗   | ✗                        | ✗                     |
| Dormitories and canteens  | ✓ < 1 Yr. Major              | ✗   | ✓ Immediate Major        | ✗                     |
| Workers' entitlement to breaks (e.g. meal breaks)                       | ✓ < 1 Yr. Major              | ✗   | ✓ Immediate Major        | ✗                     |
| Infirmity at production site  | ✓ Recommendation<br>Optional | ✗   | ✗                        | ✓ Immediate Major     |
| Prohibition of physical violence, intimidation                          | ✓ Immediate Major            | ✗   | ✗                        | ✗                     |

| Major VSS in tuna: Comparison of Principles and Critical Control Points   |                           |             |                          |                       |
|---|---------------------------|-------------|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS             |             |                          |                       |
|   | BSCI                      | MSC         | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Criteria for keeping records of disciplinary measures                     | ✗                         | ✗           | ✗                        | ✗                     |
| Security issues / role and behavior of security guards                    | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✗                     |
| Privacy protection  | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✗                     |
| Worst forms of child labor (ILO 182)                                      | ✓ Immediate Major         | ✗           | ✗                        | ✓ Immediate Major     |
| Other criteria relating to conditions of work                             | ✗                         | ✗           | ✗                        | ✗                     |
| <b>Labor Practices - Employment and Employment Relationships</b>          | <b>47/48</b>              | <b>2/48</b> | <b>22/48</b>             | <b>19/48</b>          |
| <b>CONDITIONS OF EMPLOYMENT: general principle</b>                        | ✓ < 1 Yr. Major           | ✗           | ✓ Immediate Major        | ✗                     |
| Waivers/national exemptions to maximum working hours                      | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✓ Immediate Major     |
| Workers' compensation for medical costs in case of work related accidents | ✓ Recommendation Optional | ✗           | ✗                        | ✗                     |
| Access to medical insurance   | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✗                     |
| <b>HUMAN RESOURCES MANAGEMENT: general principle</b>                      | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✗                     |
| Employment / hiring practices - legal compliance                          | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✗                     |
| Workforce reduction policies and practices - legal compliance             | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✗                     |
| Payroll records and pay slips   | ✓ < 1 Yr. Major           | ✗           | ✓ Immediate Major        | ✗                     |
| Performance assessment (for promotion, trainings )                        | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✗                     |
| Workers equipment costs (incl. uniforms)                                  | ✓ < 1 Yr. Major           | ✗           | ✗                        | ✗                     |

| Major VSS in tuna: Comparison of Principles and Critical Control Points |                          |     |                          |                       |
|---|--------------------------|-----|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS            |     |                          |                       |
|   | BSCI                     | MSC | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| LEAVE DAYS: general policy (public holidays, annual leave...)           | ✓ < 1 Yr. Major          | ✗   | ✓ Immediate Major        | ✓ Immediate Major     |
| 1 rest day off in 7-days period or more stringent policy                | ✓ Immediate Major        | ✗   | ✓ Immediate Major        | ✗                     |
| Special leave (sickness, marriage, family leave& )                      | ✓ < 1 Yr. Major          | ✗   | ✗                        | ✗                     |
| Pensions and social security benefits                                   | ✓ < 1 Yr. Major          | ✗   | ✓ Immediate Major        | ✓ Immediate Major     |
| Transportation of workers to production site                            | ✓ < 1 Yr. Major          | ✗   | ✗                        | ✗                     |
| Wage compensation issues and policies                                   | ✓ < 1 Yr. Major          | ✗   | ✗                        | ✗                     |
| Child labor and minimum age (ILO 138)                                   | ✓ Immediate Deal-breaker | ✗   | ✓ Immediate Major        | ✓ Immediate Major     |
| Child labour legal compliance policy                                    | ✓ Immediate Deal-breaker | ✗   | ✓ Immediate Major        | ✗                     |
| Maintenance of age records of workers                                   | ✓ < 1 Yr. Major          | ✗   | ✗                        | ✗                     |
| Child labour remediation policy   | ✓ < 1 Yr. Major          | ✗   | ✗                        | ✗                     |
| Hiring and employing young workers                                      | ✓ < 1 Yr. Major          | ✗   | ✓ Immediate Major        | ✗                     |
| Good conditions of work for young workers                               | ✓ Immediate Deal-breaker | ✗   | ✗                        | ✗                     |
| Young workers working hours   | ✓ Immediate Deal-breaker | ✗   | ✗                        | ✗                     |
| Training programs for young workers                                     | ✓ Immediate Major        | ✗   | ✗                        | ✗                     |
| Young workers access to effective grievance mechanisms                  | ✓ Immediate Major        | ✗   | ✗                        | ✗                     |



| Major VSS in tuna: Comparison of Principles and Critical Control Points |                           |                   |                          |                       |
|---|---------------------------|-------------------|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS             |                   |                          |                       |
|   | BSCI                      | MSC               | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Young workers trained on Occupational Health and Safety                 | ✓ Immediate Major         | ✗                 | ✗                        | ✗                     |
| Equal remuneration (ILO 100)  | ✓ Recommendation Optional | ✗                 | ✓ Immediate Major        | ✓ Immediate Major     |
| Maximum working hours   | ✓ Immediate Major         | ✗                 | ✓ Immediate Major        | ✓ Immediate Major     |
| Hours of work and overtime monitoring                                   | ✓ Immediate Major         | ✗                 | ✗                        | ✗                     |
| Other criteria relating to the conditions of employment                 | ✗                         | ✗                 | ✗                        | ✓ Immediate Major     |
| Part-time / contract workers' rights                                    | ✓ Immediate Major         | ✗                 | ✓ Immediate Major        | ✓ Immediate Major     |
| Home-workers  | ✓ < 1 Yr. Major           | ✗                 | ✓ Immediate Major        | ✗                     |
| Subcontracted workers' rights   | ✓ Immediate Major         | ✗                 | ✓ Immediate Major        | ✓ Immediate Major     |
| <b>WORK AND LABOR RIGHTS: general principle</b>                         | ✓ < 1 Yr. Major           | ✗                 | ✗                        | ✗                     |
| Voluntary employment - No forced labor (ILO 29 & 105)                   | ✓ Immediate Deal-breaker  | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major     |
| Right to refuse overtime  | ✓ Immediate Deal-breaker  | ✗                 | ✓ Immediate Major        | ✗                     |
| Overtime compensation required/specified                                | ✓ Immediate Major         | ✗                 | ✓ Immediate Major        | ✓ Immediate Major     |
| Use of prison labor   | ✓ Immediate Deal-breaker  | ✗                 | ✗                        | ✗                     |
| Template/format for terms of labour contracts                           | ✓ Immediate Major         | ✗                 | ✓ Immediate Deal-breaker | ✓ Immediate Major     |
| Migrant workers' employment and contract management                     | ✓ < 1 Yr. Major           | ✗                 | ✗                        | ✗                     |

| Major VSS in tuna: Comparison of Principles and Critical Control Points |                          |                   |                          |                           |
|---|--------------------------|-------------------|--------------------------|---------------------------|
| REQUIREMENTS  | KEY STANDARDS            |                   |                          |                           |
|   | BSCI                     | MSC               | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH     |
| Illegal/excessive deductions or fees (incl. Recruitment fees)           | ✓ Immediate Deal-breaker | ✗                 | ✗                        | ✓ Immediate Major         |
| Retention of workers' documentation (ID, passport)                      | ✓ Immediate Deal-breaker | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         |
| Use of contracts in written form  | ✓ Immediate Major        | ✗                 | ✗                        | ✓ Immediate Major         |
| Workers mobility and freedom of movement                                | ✓ < 1 Yr Deal-breaker    | ✓ Immediate Major | ✓ Immediate Major        | ✓ Immediate Major         |
| Timely payment of wages   | ✓ < 1 Yr. Major          | ✗                 | ✓ Immediate Major        | ✓ Recommendation Optional |
| Minimum Wage  | ✓ < 1 Yr. Major          | ✗                 | ✓ Immediate Major        | ✓ Recommendation Optional |
| Living Wage   | ✓ < 1 Yr. Major          | ✗                 | ✓ Immediate Major        | ✗                         |
| Policies and procedures to address workers' grievances                  | ✓ < 1 Yr. Major          | ✗                 | ✗                        | ✗                         |
| <b>Labor Practices - Human Development and Social Dialogue</b>          | <b>13/18</b>             | <b>0/18</b>       | <b>9/18</b>              | <b>8/18</b>               |
| Freedom of association (ILO 87)   | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         |
| Collective Bargaining (ILO 98)  | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         |
| No discrimination at work (ILO 111)                                     | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         |
| Non-discrimination of persons with disabilities                         | ✓ Immediate Major        | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         |
| Workers' access to training programs                                    | ✗                        | ✗                 | ✗                        | ✗                         |
| Apprentice programs for young workers                                   | ✓ < 1 Yr. Major          | ✗                 | ✗                        | ✗                         |






























































| Major VSS in tuna: Comparison of Principles and Critical Control Points                   |                 |             |                          |                           |
|---|-----------------|-------------|--------------------------|---------------------------|
| REQUIREMENTS  | KEY STANDARDS   |             |                          |                           |
|   | BSCI            | MSC         | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH     |
| Joint committees and unions   | ✓ < 1 Yr. Major | ✗           | ✗                        | ✗                         |
| Formation of workers representation in countries where it is not supported by legislation | ✓ < 1 Yr. Major | ✗           | ✗                        | ✗                         |
| Workers awareness of procedures and best practices  | ✓ < 1 Yr. Major | ✗           | ✗                        | ✗                         |
| Policies and procedures to monitor workers' satisfaction                                  | ✓ < 1 Yr. Major | ✗           | ✗                        | ✗                         |
| <b>GENDER ISSUES: general principle</b>   | ✓ < 1 Yr. Major | ✗           | ✓ Immediate Major        | ✓ Immediate Major         |
| Gender policies and best practices  | ✗               | ✗           | ✓ Immediate Major        | ✓ Recommendation Optional |
| Women's access to health and safety services  | ✗               | ✗           | ✗                        | ✓ Recommendation Optional |
| Women's rights at work  | ✗               | ✗           | ✓ Immediate Major        | ✗                         |
| Maternity/paternity leave days  | ✗               | ✗           | ✓ Immediate Major        | ✗                         |
| Non-discrimination based on gender  | ✓ < 1 Yr. Major | ✗           | ✓ Immediate Major        | ✓ Recommendation          |
| <b>GENDER POLICIES AT WORK - general principles</b>                                       | ✓ < 1 Yr. Major | ✗           | ✗                        | ✗                         |
| Family-friendly policies to increase the labour force participation of women              | ✓ < 1 Yr. Major | ✗           | ✗                        | ✗                         |
| <b>MANAGEMENT</b>   | <b>9/29</b>     | <b>9/29</b> | <b>4/29</b>              | <b>14/29</b>              |
| <b>Economic Viability</b>   | <b>0/2</b>      | <b>0/2</b>  | <b>1/2</b>               | <b>2/2</b>                |
| Long term sustainability management plan / continuous improvement                         | ✗               | ✗           | ✗                        | ✓ Immediate Major         |
| <b>ADMINISTRATION AND MANAGEMENT: general principle</b>                                   | ✗               | ✗           | ✓ Immediate Major        | ✓ Immediate Major         |

| Major VSS in tuna: Comparison of Principles and Critical Control Points        |                 |                   |                          |                           |
|--|-----------------|-------------------|--------------------------|---------------------------|
| REQUIREMENTS   | KEY STANDARDS   |                   |                          |                           |
|  | BSCI            | MSC               | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH     |
| <b>Sustainability Management</b>   | <b>7/14</b>     | <b>7/14</b>       | <b>3/14</b>              | <b>7/14</b>               |
| <b>ENVIRONMENT AND SOCIAL (E&amp;S) MANAGEMENT SYSTEMS: general principles</b> | ✓ < 1 Yr. Major | ✗                 | ✗                        | ✗                         |
| Staff training on sustainability issues  | ✓ < 1 Yr. Major | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         |
| Environmental risks and impacts  | ✓ < 1 Yr. Major | ✓ Immediate Major | ✗                        | ✓ Immediate               |
| Environment and social risks mitigation and performance improvement            | ✓ < 1 Yr. Major | ✓ < 1 Yr. Minor   | ✗                        | ✓ Immediate Minor         |
| Organizational capacity for environmental and social (E&S) management          | ✗               | ✓ < 1 Yr. Minor   | ✗                        | ✓ Recommendation Optional |
| Effectiveness of E&S management systems  | ✗               | ✓ < 1 Yr. Minor   | ✗                        | ✗                         |
| Reporting on and making publicly available E&S management systems              | ✗               | ✓ < 1 Yr. Minor   | ✗                        | ✗                         |
| Staff or worker evacuation safety procedures                                   | ✓ < 1 Yr. Major | ✗                 | ✗                        | ✗                         |
| Verification of mandatory certificates and permits                             | ✓ < 1 Yr. Major | ✓ Immediate Major | ✓ Immediate Major        | ✗                         |
| Occupation Health and Safety (OHS) management system                           | ✓ < 1 Yr. Major | ✗                 | ✗                        | ✓ Immediate Major         |
| Corporate Social Responsibility policy   | ✗               | ✓ Immediate Major | ✗                        | ✗                         |
| Internal Control System  | ✗               | ✗                 | ✗                        | ✓ Immediate Major         |
| Provision of access for persons or workers with special needs                  | ✗               | ✗                 | ✗                        | ✗                         |
| Other criteria relating to administration and management issues                | ✗               | ✗                 | ✓ Immediate Major        | ✓ Immediate Major         |
| <b>Supply Chain Responsibilities</b>   | <b>2/13</b>     | <b>2/13</b>       | <b>0/13</b>              | <b>5/13</b>               |

| Major VSS in tuna: Comparison of Principles and Critical Control Points             |                 |                   |                          |                       |
|---|-----------------|-------------------|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS   |                   |                          |                       |
|   | BSCI            | MSC               | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Market data and analysis  | ✗               | ✗                 | ✗                        | ✓ Immediate Major     |
| Supply chain stakeholders mapping   | ✓ < 1 Yr. Major | ✗                 | ✗                        | ✓ Immediate Major     |
| Access to financial services (payment, credit, savings, subsidies& )                | ✗               | ✗                 | ✗                        | ✓ Immediate Major     |
| Use of price premium  | ✗               | ✗                 | ✗                        | ✗                     |
| Minimum price guarantees  | ✗               | ✗                 | ✗                        | ✗                     |
| Setting-up contracts with traders   | ✓ < 1 Yr. Major | ✗                 | ✗                        | ✗                     |
| Traceability of inputs / varieties and records of materials used                    | ✗               | ✗                 | ✗                        | ✓ Immediate Major     |
| Access to technology and innovation   | ✗               | ✗                 | ✗                        | ✗                     |
| Infrastructure (transport, storage, testing laboratories& )                         | ✗               | ✓ Immediate       | ✗                        | ✗                     |
| Monitoring / measure of customer / client satisfaction                              | ✗               | ✗                 | ✗                        | ✗                     |
| Policies encouraging clients, staff and suppliers to consider sustainability issues | ✗               | ✗                 | ✗                        | ✗                     |
| Fair marketing based on factual and unbiased information                            | ✗               | ✗                 | ✗                        | ✓ Immediate Major     |
| Subcontracting (disclosure of, prior approval, auditor's access to)                 | ✗               | ✓ Immediate Major | ✗                        | ✗                     |
| <b>QUALITY</b>  | <b>0/78</b>     | <b>1/78</b>       | <b>0/78</b>              | <b>26/78</b>          |
| <b>Product / Service Quality Management</b>   | <b>0/21</b>     | <b>1/21</b>       | <b>0/21</b>              | <b>11/21</b>          |
| Quality policy  | ✗               | ✗                 | ✗                        | ✓ Immediate Major     |































































| Major VSS in tuna: Comparison of Principles and Critical Control Points |               |                   |                          |                       |
|---|---------------|-------------------|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS |                   |                          |                       |
|   | BSCI          | MSC               | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Quality: compliance to national and international legislation           | ✗             | ✗                 | ✗                        | ✓ Immediate Major     |
| Quality: risk assessment and hazard control procedures                  | ✗             | ✗                 | ✗                        | ✓ Immediate Major     |
| Quality: documentation and monitoring procedures                        | ✗             | ✗                 | ✗                        | ✓ Immediate Major     |
| Product quality technical requirements                                  | ✗             | ✗                 | ✗                        | ✗                     |
| Testing quality of final products                                       | ✗             | ✗                 | ✗                        | ✗                     |
| Energy used during manufacturing processes                              | ✗             | ✗                 | ✗                        | ✗                     |
| Energy efficiency of production process                                 | ✗             | ✗                 | ✗                        | ✓ Immediate Major     |
| Products packaging and transportation policy                            | ✗             | ✗                 | ✗                        | ✓ Immediate           |
| Products storage facilities - excl. Food products                       | ✗             | ✗                 | ✗                        | ✗                     |
| Quality Management - Quality Manual available to the staff/workers      | ✗             | ✗                 | ✗                        | ✗                     |
| Quality Management - Control process documented                         | ✗             | ✗                 | ✗                        | ✓ Immediate Major     |
| Quality Management - Traceability and records-keeping                   | ✗             | ✓ Immediate Major | ✗                        | ✓ Immediate Major     |
| Quality Management - Objectives established and monitored               | ✗             | ✗                 | ✗                        | ✗                     |
| Quality Management - Customer focus & performance indicators            | ✗             | ✗                 | ✗                        | ✗                     |
| Quality Management - Complaint management system                        | ✗             | ✗                 | ✗                        | ✗                     |
| Quality Management - Complaints records keeping                         | ✗             | ✗                 | ✗                        | ✗                     |

| Major VSS in tuna: Comparison of Principles and Critical Control Points               |               |             |                          |                       |
|---|---------------|-------------|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS |             |                          |                       |
|   | BSCI          | MSC         | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Quality Management - Periodic review of QMS by management                             | ✗             | ✗           | ✗                        | ✗                     |
| Quality Management - Internal audit system in place                                   | ✗             | ✗           | ✗                        | ✓ Immediate Major     |
| Quality Management - Monitoring and management of incidences                          | ✗             | ✗           | ✗                        | ✓ Immediate Major     |
| Quality Management - Corrective actions documented                                    | ✗             | ✗           | ✗                        | ✓ Immediate Major     |
| <b>Food/Feed Management Systems</b>   | <b>0/57</b>   | <b>0/57</b> | <b>0/57</b>              | <b>15/57</b>          |
| Establishment and implementation of HACCP plan  | ✗             | ✗           | ✗                        | ✗                     |
| Compliance to relevant legal national and international food/feed safety requirements | ✗             | ✗           | ✗                        | ✓ Immediate Major     |
| Raw material, intermediate & final products specifications                            | ✗             | ✗           | ✗                        | ✗                     |
| Documented policy and related food/feed safety objectives                             | ✗             | ✗           | ✗                        | ✓ Immediate Major     |
| Documented required procedures and instructions on food/feed safety                   | ✗             | ✗           | ✗                        | ✗                     |
| Other documents to ensure effective operation of food/feed Management system          | ✗             | ✗           | ✗                        | ✗                     |
| Communication policy towards workers on the importance of food/feed safety assurance  | ✗             | ✗           | ✗                        | ✗                     |
| Establishment of multidisciplinary HACCP team   | ✗             | ✗           | ✗                        | ✗                     |
| Procedure for managing complaints   | ✗             | ✗           | ✗                        | ✗                     |
| Established and documented training and education about food/feed safety management   | ✗             | ✗           | ✗                        | ✗                     |
| Facilities for personnel hygiene  | ✗             | ✗           | ✗                        | ✗                     |






| Major VSS in tuna: Comparison of Principles and Critical Control Points  |   |   |   |   |
|--|---|---|---|---|
| REQUIREMENTS   | KEY STANDARDS   |   |   |   |
|  | BSCI  | MSC   | FRIEND OF THE SEA<br>FOS  | NATURLAND<br>WILDFISH   |
| Protective clothing  |    |    |    |    |
| Medical screening  |    |    |    |    |
| Sites are fit for safe food/feed production  |    |    |    | ✓ Immediate Major   |
| Site location / Clear identification of buildings, production and storage areas                                  |    |    |    |    |
| Eating/drinking facilities separate from production areas  |    |    |    |    |
| Controlled access to the site with clearly communicated hygiene instructions                                     |    |    |    |    |
| Storage conditions, hygiene requirements and verification processes  |    |    |    |    |
| Storage of chemicals incl. storage facilities, accessibility and handling by personnel                           |    |    |    |    |
| Water supply volume, quality and safety assured  |    |    |    |    |
| Definition and documented implementation of a proper and complete maintenance program                            |    |    |    |    |
| Proper and complete cleaning programme for all sites, buildings, areas and equipment                             |   |   |   |   |
| Food harvesting/processing utensils cleaned, disinfected, sanitized, maintained and protected from contamination |  |  |  | ✓ Immediate Major   |
| Suitable and lawful use of cleaning and/or sanitizing agents for food/feed safety                                |  |  |  |  |
| Implementation of a proper and complete pest control programme   |  |  |  |  |
| Qualification of internal and external people assured  |  |  |  |  |
| Waste management system  |  |  |  | ✓ Immediate Major   |



| Major VSS in tuna: Comparison of Principles and Critical Control Points   |               |     |                          |                       |
|---|---------------|-----|--------------------------|-----------------------|
| REQUIREMENTS  | KEY STANDARDS |     |                          |                       |
|   | BSCI          | MSC | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Waste water drainage, discharge, re-using, recycling processes  | ✗             | ✗   | ✗                        | ✗                     |
| Product transportation procedures   | ✗             | ✗   | ✗                        | ✗                     |
| Assurance that risks related to harvesting, handling, processing, transportation and packaging of food/feed are identified and controlled | ✗             | ✗   | ✗                        | ✗                     |
| Harvested/semi-processed products packaging protection against contamination  | ✗             | ✗   | ✗                        | ✗                     |
| Food production contamination risks - Glass and wood foreign bodies inspection  | ✗             | ✗   | ✗                        | ✗                     |
| Food production contamination risks - Water contamination   | ✗             | ✗   | ✗                        | ✗                     |
| Food production contamination risks - foreign body  | ✗             | ✗   | ✗                        | ✓ Immediate Major     |
| Food products handling: general policy  | ✗             | ✗   | ✗                        | ✗                     |
| General principle about chilling, storage and transportation  | ✗             | ✗   | ✗                        | ✓ Immediate Major     |
| GMO handling procedures   | ✗             | ✗   | ✗                        | ✓ Immediate Major     |
| Allergen handling procedures  | ✗             | ✗   | ✗                        | ✗                     |
| Identity preservation model   | ✗             | ✗   | ✗                        | ✓ Immediate Major     |
| Traceability system established and monitored   | ✗             | ✗   | ✗                        | ✓ Immediate Major     |
| Segregation model   | ✗             | ✗   | ✗                        | ✗                     |
| Mass balance model  | ✗             | ✗   | ✗                        | ✗                     |

| Major VSS in tuna: Comparison of Principles and Critical Control Points                         |   |   |   |   |
|---|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |   |   |   |
|   | BSCI  | MSC   | FRIEND OF THE SEA<br>FOS  | NATURLAND<br>WILDFISH   |
| Procedures to ensure that formulation of products does not introduce any food/feed safety risks |    |    |    |    |
| Food / feed production process & control - Health and nutrition requirements                    |    |    |    |    |
| Traceability system established and monitored   |    |    |    | ✓ Immediate Major   |
| Record information on received products and suppliers   |    |    |    | ✓ Immediate Major   |
| Product recall policy   |    |    |    |    |
| Procedure for management and correction of non-conformities                                     |    |    |    |    |
| All potential hazards identified  |    |    |    |    |
| Determination of CCPs   |    |    |    |    |
| Critical limits established   |    |    |    |    |
| Establishment of monitoring procedures for CCPs   |    |    |    |    |
| Establishment of corrective actions   |  |  |  |  |
| Verification of the HACCP plan including frequency  |  |  |  |  |
| Records to demonstrate hazard control   |  |  |  |  |
| Sampling procedures for incoming goods, finished products and products during production        |  |  |  |  |
| Food production process & control - Product analysis and testing                                |  |  |  |  |
| Food production process & control - Quantity control procedures                                 |  |  |  |  |

| Major VSS in tuna: Comparison of Principles and Critical Control Points      |                   |             |                          |                       |
|--|-------------------|-------------|--------------------------|-----------------------|
| REQUIREMENTS   | KEY STANDARDS     |             |                          |                       |
|  | BSCI              | MSC         | FRIEND OF THE SEA<br>FOS | NATURLAND<br>WILDFISH |
| Maintenance and calibration of measuring equipment                           | ✗                 | ✗           | ✗                        | ✗                     |
| <b>ETHICS</b>  | <b>8/20</b>       | <b>3/21</b> | <b>3/21</b>              | <b>3/21</b>           |
| <b>Ethics: Anti-Corruption and Bribery Principles And Criteria</b>           | <b>6/16</b>       | <b>0/16</b> | <b>0/16</b>              | <b>0/16</b>           |
| Ethics - General principle   | ✗                 | ✗           | ✗                        | ✗                     |
| Corruption and bribery prevention  | ✓ < 1 Yr. Major   | ✗           | ✗                        | ✗                     |
| Corruption and bribery risk assessment                                       | ✓ < 1 Yr. Major   | ✗           | ✗                        | ✗                     |
| Anti-bribery requirements for due diligence                                  | ✓ < 1 Yr. Major   | ✗           | ✗                        | ✗                     |
| Anti-bribery requirements for internal controls, records keeping, M&E        | ✓ < 1 Yr. Major   | ✗           | ✗                        | ✗                     |
| Anti-bribery requirements for mitigation and corrective actions              | ✓ < 1 Yr. Major   | ✗           | ✗                        | ✗                     |
| Anti-bribery requirements for external reporting and communication           | ✗                 | ✗           | ✗                        | ✗                     |
| Facilitation of audit implementation and auditors mobility                   | ✗                 | ✗           | ✗                        | ✗                     |
| Requirements related to auditors' access to necessary sites or documentation | ✗                 | ✗           | ✗                        | ✗                     |
| Requirements to monitor and follow-up on bribery or corruption allegations   | ✗                 | ✗           | ✗                        | ✗                     |
| Requirements to monitor and follow-up on bribery or corruption allegations   | ✓ < 1 Yr. Major   | ✗           | ✗                        | ✗                     |
| Transparency of audit findings   | ✗                 | ✗           | ✗                        | ✗                     |
| Verification of business license and other mandatory certificates            | ✓ Immediate Major | ✗           | ✓ Immediate Major        | ✓ Immediate           |

| Major VSS in tuna: Comparison of Principles and Critical Control Points       |   |   |   |   |
|---|---|---|---|---|
| REQUIREMENTS  | KEY STANDARDS   |   |   |   |
|   | BSCI  | MSC   | FRIEND OF THE SEA<br>FOS  | NATURLAND<br>WILDFISH   |
| <b>Ethics: Compliance To National, Regional And International Legislation</b> | 2/4   | 3/4   | 3/4   | 3/4   |
| Compliance to social and labour conventions and standards                     |  | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Compliance to national and regional environmental standards and regulations   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Compliance with local social and environmental laws and regulations           | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   | ✓ Immediate Major   |
| Compliance with local zoning and protected or heritage area requirements      |  |  |  |  |

## ANNEX XX



