International Labour Organization

VISION ZERO FUND

Drivers and constraints for occupational safety and health improvements in the Viet Nam coffee supply chain

ASSESSMENT REPORT



Drivers and constraints for occupational safety and health improvements in the Viet Nam coffee supply chain

ASSESSMENT REPORT[1]

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Abbreviations and acronyms

BEA	Bureau of Employers' Activities (under VCCI)
DARD	Department of Agriculture and Rural Development
DCP	Department of Crop Production
DOLISA	Department of Labour, Invalids and Social Affairs
EPI	Export Potential Indicator
EU	European Union
EVFTA	EU-Vietnam Free Trade Agreement
FAO	Food and Agriculture Organization
FGD	Focus Group Discussions
GCP	Global Coffee Platform
GSC	Global Supply Chains
HA	Hectare
HCMC	Ho Chi Minh City
HI	Health Insurance
IDH	Sustainable Trade Initiative
ILO	International Labour Organization
IPSARD	Institute for Policy and Strategy for Agriculture and Rural Development
ISLA	Initiative for Sustainable Landscapes
ITC	International Trade Centre
KII	Key Informant Interview
MARD	Ministry of Agriculture and Rural Development
MoH	Ministry of Health
MoIT	Ministry of Industry and Trade
MOLISA	Ministry of Labour, Invalids, and Social Affairs
NAEC	National Agriculture Extension Centre
NGO	Non-Government Organization
OSH	Occupational Safety and Health
PPE	Personal Protective Equipment
RFA	Rainforest Alliance
SDM	Service Delivery Model
SI	Social Insurance
SOE	State-Owned Enterprise
SME	Small and Medium-sized Enterprises
ToT	Training of Trainers
VCA	Viet Nam Cooperative Alliance
VCCB	Viet Nam Coffee Coordination Board
VCCI	Viet Nam Chamber of Commerce and Industry
VGCL	Viet Nam General Confederation of Labour
VICOFA	Viet Nam Coffee & Cocoa Association
VIHEMA	Vietnam Health and Environment Management Agency
VNFU	Viet Nam Farmer's Union
VN NIOSH	Viet Nam National Institute of Occupational Safety and Health
VWU	Vietnam Women's Union
VZF	Vision Zero Fund
WASI	Western Highlands Agriculture & Forestry Science Institute
WIND	Work Improvement in Neighbourhood Development
4C	The Common Code for the Coffee Community

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Executive Summary

The Vision Zero Fund (VZF) is a multi-donor initiative that envisions a future with zero workplace accidents and diseases. VZF implements interventions that prevent work-related accidents, injuries and diseases in global supply chains and supports insurance schemes and compensation mechanisms. At the country level, VZF aims to foster the prevention and compensation of occupational safety and health (OSH) risks through a mix of private and public interventions.

With the aim to improve OSH related risks in Viet Nam, VZF commissioned a coffee value chain assessment. This assessment followed the International Labour Organization (ILO) methodology for the assessment of drivers and constraints for OSH improvement in Global Supply Chains (GSC) and the design of intervention models to improve OSH in the selected GSC.[2] Primary data collection on the coffee value chain took place in Lam Dong province and was gathered through workplace observations, worker and farmer interviews and focus group discussions. In addition, desktop research was completed and key informant interviews were held in Hanoi.

Globally, the annual income of the coffee value chain is estimated to top US$200 billion, which is more than 11 times the value of exports received by producing countries. It is further estimated that at least 100 million families worldwide depend on coffee for their living.[3] As per the International Coffee Organisation (ICO), global coffee production reached about 170.8 million 60 kg bags in coffee year 2020/2021.[4] Brazil and Viet Nam are the leading global coffee producers and exporters. They recorded an average annual production over 2010/2019 crop years of 55.2 million and 26.9 million coffee bags (with 60 kg per bag) respectively. As of 2019, their coffee export values reached US$5.1 billion (Brazil) and USD$2.7 billion (Viet Nam).[5]

Viet Nam is not only the second largest coffee producer globally, but also the world's largest producer of the Robusta coffee variety. Robusta coffee constitutes about 97 per cent of its annual production versus 3 per cent of Arabica.[6] Dominated by Robusta plantations, the Central Highlands, including the provinces of Dak Lak, Lam Dong, Gia Lai and Dak Nong are Viet Nam's leading coffee growing region.

Only 10 per cent of Viet Nam's coffee production is consumed domestically. Its remaining 90 per cent of coffee is exported, predominantly in the form of green beans (97 per cent). In 2020, the main destination of coffee[7] exports from Viet Nam[8] were: Germany[9] (US$344 million), United States[10] (US$256 million), Italy[11] (US$215 million), Spain[12] (US$178 million), and Japan[13] (US$160 million). The fastest growing export markets for Viet Namese coffee between 2019 and 2020 are located in Asia, including Japan and the Philippines.[14]

The COVID-19 pandemic disrupted global trade flows, including those of coffee. It affected labour supply, either directly due to illness, or indirectly through social distancing measures, lockdowns and travel restrictions, which limited the movement of farm labourers and migrant workers.

2 Occupational Safety and Health in Global Value Chains Starterkit (ILO, 2018). https://www.ilo.org/global/topics/safety-and-health-at-work/home/WCMS_635157/lang--en/index.htm
3 The Coffee Guide (ITC, 2021). https://intracen.org/resources/publications/the-coffee-guide-fourth-edition
4 Coffee Development Report; The future of Coffee (ICC, 2021) https://www.internationalcoffeecouncil.com/_files/ugd/0dd08e_b2c2768ae87045e383962ce14ef44925.pdf
5 The Coffee Guide (ITC, 2021). https://intracen.org/resources/publications/the-coffee-guide-fourth-edition
6 Country Coffee Profile (ICC, 2019). http://www.ico.org/documents/cy2018-19/icc-124-9e-profile-vietnam.pdf
7 https://oec.world/en/profile/hs/coffee
8 https://oec.world/en/profile/country/vnm
9 https://oec.world/en/profile/country/deu
10 https://oec.world/en/profile/country/usa
11 https://oec.world/en/profile/country/ita
12 https://oec.world/en/profile/country/esp
13 https://oec.world/en/profile/country/jpn
14 https://oec.world/en/profile/bilateral-product/coffee/reporter/vnm

Internal logistics networks and the functioning of the export infrastructure have been disrupted, resulting in shipment delays as well as increased trade and transaction costs.[15] As reported by the Viet Nam Coffee & Cocoa Association (VICOFA), during the 2021/2022 coffee harvest season, coffee exporters struggled to transport coffee beans to ports for shipment.[16] However, coffee exports in the last month of 2021 had a spectacular jump, reaching 169,000 tons, with a market-value of US$ 379 million. Up from the month earlier, this represented a 57.6 per cent increase in volume and 56.9 per cent increase in value. As a result, coffee export turnover in 2021 reached US$ 3.073 billion. The strong finish of coffee export in 2021 is mainly due to the high price of coffee globally, thereby positively affecting the price of Viet Nam's coffee exports.[17]

In Viet Nam, 95 per cent of coffee production is dominated by privately operated farms, the majority of which are smallholder farms (640,000) with a farm size of less than 2 hectares (HA). Of these, 63 per cent of the household farms are less than 1 HA. The remaining 5 per cent of the coffee plantations are managed by 40 state-owned farms.[18]

It is estimated that 50 per cent of the 1.4 million Vietnamese workers involved in coffee production are women, most of them doing unpaid work as household members. Overall, a high percentage of workers belong to vulnerable groups, including seasonal workers who are mostly employed during the coffee harvest, ethnic minorities, internal migrants and young workers.

The number of permanent workers employed on coffee farms is estimated to amount to 600,000, rising to 800,00 during the coffee harvest season (LDC 2018).[19] To improve coffee quality, the Viet Namese government is taking measures to stabilize approximately 600,000 HA of the coffee production area. At present, Viet Nam has one of the highest coffee cultivation yields worldwide, with an average yield per HA of 2.3 metric tons.[20]

However, this high productivity results from intensive farming practices, which lead to over-fertilization of coffee trees, water contamination, and an expected decline in future production. Expanding coffee cultivation during the past few decades has also resulted in deforestation, soil depletion and reduction of ground-water resources. Climate change impacts further aggravate the situation.[21] Another challenge in Viet Nam coffee production is its ageing coffee trees, which the government is trying to address through an extensive, replanting programme.

As per GSO data, in 2021 about 33.6 million people were working in the informal economy, including in agriculture, aquaculture and forestry. Informal workers generally lack written contractual agreements and social insurance (SI), which leaves them unprotected against life cycle and other risks such as unemployment, maternity, sickness, old age, disability, employment injury and disease.

The Health Insurance Law applies to all Vietnamese citizens and residents, and as such, informal workers in agriculture are legally covered by Social Health Insurance. The insurance provides for a comprehensive set of benefits, including medical examination, treatment for sickness and injury, rehabilitation for non-work-related injuries, periodic antenatal care and delivery. However, effective coverage is not yet universal; an estimated 10 million people remain uninsured. This gap is largely attributed to the informal economy. Moreover, the insurance does not provide income support to workers who have either partially or permanently lost their capacity to work due to a work-related accident or to workers affected by prolonged sickness and occupational diseases.

15 Country Coffee Profile (ICC, 2019) https://www.ico.org/documents/cy2019-20/coffee-break-series-3e.pdf
16 World Coffee Portal (Allegra 2021) https://www.worldcoffeeportal.com/Latest/News/2021/September/Global-coffee-supplies-hit-by-Vietnam-s-fresh-Covi
17 “Coffee exports in 2022 will grow due to the increase in prices” (Nong Nghiep, Feb 2022) https://vietnamagriculture.nongnghiep.vn/coffee-exports-in-2022-will-grow-due-to-the-increase-in-prices-d316461.html
18 Country Coffee Profile (ICC, 2019) https://www.ico.org/documents/cy2019-20/coffee-break-series-3e.pdf
19 Coffee Report (LDC, 2018) https://www.ldc.com/wp-content/uploads/LDC_Coffee_Report_2018-1.pdf
20 Country Coffee Profile (ICC, 2019) https://www.ico.org/documents/cy2019-20/coffee-break-series-3e.pdf
21 Based on analysis by the FAO and UNDP (2021), for coffee production the districts in Dong Nai, Dak Lak, and Lam Dong province have the highest climate vulnerability index (VI). This rating reflects observed impacts on agricultural productivity by natural hazards in Dak Lak. According to data from Dak Lak Department of Agriculture and Rural Development from 1996 to 2011, the annual loss from natural disasters in Dak Lak was more than Vietnamese Dong 681 billion, of which losses caused by drought accounted for 80 per cent. https://www.fao.org/publications/card/fr/c/CB3776EN/

During the harvest season from October to January, smallholder farms complement their permanent workforce by recruiting seasonal, informal workers from the same or other regions in Viet Nam. These recruits do not usually have contracts, are not covered by insurance schemes and lack access to OSH training. Also, in coffee collection and processing, seasonal workers are recruited during the peak season, primarily for the tasks of loading and unloading beans. Seasonal workers who are directly recruited by processors often work under a verbal agreement and generally do not receive a written contract, which typically would include social insurance coverage. This assessment aims to identify the occupational hazards and risks workers are exposed to at the different stages of Viet Nam's coffee supply chain. It aims to highlight the factors that increase the likelihood of exposure and the groups most likely to experience certain OSH risks, identifying workers with limited capacity, strategies and resources to cope with the consequences of exposure.

As identified through Focus Group Discussions (FGD) with farmers and processing workers, and as validated through workplace visits and by national and international stakeholders, coffee farmers and coffee processors experience overlapping, but also unique ergonomic, physical, biological and chemical hazards and risks in doing their respective jobs.

For **coffee farmers**, the main OSH hazards identified are:

- Ergonomic hazards: working in steep sloping gardens, manually carrying heavy loads, and awkward postures
- Physical hazards: slippery surface while harvesting, working at high heights while pruning, sun exposure and heat
- Biological hazards: pest, animals, animal manure, infective and allergenic organisms, COVID-19 virus[22]
- Chemical hazards: agro-chemicals, particularly through using pesticides
- Psychosocial hazards: long working hours, lack of resting time, and excessive workload

Additionally, farmers are exposed to road safety hazards when they transport coffee to collectors and processors. These risks are caused by environmental factors, such as sun glare, heavy rain and the physical features of the roads, for example, potholes and roads which pass through steep, bending and mountainous areas.

Pregnant and nursing workers, young and older workers[23], and workers with pre-existing medical conditions are particularly susceptible to the above-mentioned hazards. While all workers need a safe and healthy working environment, the OSH needs of these groups require specific attention, informed by their life-cycle related state of health and need for care. Non-contract workers, many of whom do not have access to OSH and risk awareness training, may not yet know how to protect themselves from these risks. In addition, non-contract farmworkers are usually uninsured which limits their access to health services and compensation in the event of an occupational injury or disease, and therefore, their overall ability to deal with the consequences of exposure to occupational risks. The coping capacity is higher for formally contracted farm workers who are insured under the social insurance scheme and for farmers that have voluntary health and injury insurance.

For **coffee processing workers**, the main OSH hazards include:

- Ergonomic hazards: loading and unloading heavy materials, such as 60kg sacks, and awkward working postures
- Physical hazards: noise, heat, dust, machines, forklifts, conveyer belts
- Biological hazard: COVID-19 virus
- Fire hazards: electrical wiring and accumulation of combustible materials
- Chemical hazards: wastewater

As with coffee farmers, workers employed in coffee processing facilities are exposed to similar road safety hazards when transporting coffee to traders and exporters. Moreover, for non-contract processing workers, limited access to OSH and risk awareness training, insurance and access to health services creates similar vulnerabilities to those previously mentioned for coffee farmers. Drivers for OSH improvement are favourable conditions and forces ingrained in the coffee market system, that are not yet fully exploited or utilized. For future OSH improvement in the coffee value chain in Viet Nam, the actual and potential drivers include value chain embedded services, updated public-private support services and a strengthening of the overall legal framework.

22 During discussions with the research team (March 2021), coffee farmers and coffee processing workers did not mention exposure to COVID-19 as a concern. At that time, COVID-19 infection rates in Lam Dong province were very low. However, the pandemic situation changed during the course of 2021, with an increasing number of positive cases also recorded in the Central Highland provinces. The COVID-19 virus was therefore included in the list of hazards.
23 Article 143 of the Viet Nam Labour Code allows minors to work from the age of 13. Minors aged 13 to under 15 are allowed to do light work as per definition by MOLISA (see Article 143, point 3); minors aged 15 to under 18 can be legally employed but are not allowed to do heavy and hazardous work as defined by Art. 147 of the Labour Code. The Labour Code 2019 defines elderly workers as those that continue working beyond retirement age as per Art.169, clause 2 (Since January 2021, the retirement age of employees under ordinary working conditions is 60 years 3 months for male employees and 55 years 4 months for female employees. The age increases by 3 months for male employees each successive year until he reaches 62 years in 2028, and it increases by 4 months for female employees each successive year until she reaches 60 years in 2035. See: Labour Code 2019, Art. 169, clause 2; Decree 135/2020/ND-CP, Art. 4.).

The actual drivers for OSH improvement are the existence of:

- Training and other support services by value chain actors;
- Regular events by the government or other stakeholders (such as the annual OSH month in Viet Nam, organized under the leadership of Ministry of Labour, Invalids, and Social Affairs (MOLISA) or the Viet Nam National Coffee Day);
- A solid legal framework, including the Law on Health Insurance (2014), the Law on Social Insurance (2014, 2019), the OSH Law (2015) and the Viet Nam Labor Code (2019).

The potential drivers are:

- Coffee sustainability initiatives by international, non-government organizations (NGOs), such as the programmes and services offered by the Sustainable Trade Initiative (IDH) and the Global Coffee Platform (GCP);
- Coffee sustainability platforms by national stakeholders such as the Viet Nam Coffee Coordination Board (VCCB);
- Multi-national and large national companies, which can be harnessed to promote and disseminate good OSH practices among their supplier networks;
- Nationally accredited guidelines on coffee cultivation, such as the National Sustainability Curricula for Robusta, which could embed the promotion of OSH;
- Coffee certification schemes that include OSH requirements.

The constraints for OSH improvement are the root causes of the OSH vulnerabilities or underlying factors that hinder OSH. In the coffee sector in Viet Nam, factors relate to deficits with respect to OSH awareness, markets for input supply and certified coffee, support services related to training, public support measures and the availability of relevant data to inform OSH improvement policies and measures.

Key constraints include:

- Low OSH awareness and knowledge; some OSH awareness and knowledge exists, but overall, it is not yet a high priority for actors within Viet Nam's coffee value chain;
- Adequate, accessible and affordable personal protective equipment (PPE) is often difficult to find and purchase;
- Lack of access by many coffee workers to dedicated OSH training;
- Insufficient collection, analysis and dissemination of OSH data in agriculture, including data on OSH conditions and occupational accidents and diseases, impedes the formulation of OSH improvement policies and measures.

Based on the abovementioned **drivers and constraints** identified during the assessment, the following interventions are proposed:

- Increase OSH awareness and knowledge among coffee farmers, collectors and coffee processing workers, including through:
  - Strengthening OSH awareness raising campaigns, conferences and workshops, and OSH awareness activities as side events of National Coffee Day celebrations;
  - Developing OSH training material for coffee farmers and coffee processing workers;
  - Developing OSH trainer skills through Training-of-Trainer (ToT) programmes; possible training beneficiaries: national agricultural extension workers, DOLISA and VCA staff, Viet Nam Farmers' Union, OSH practitioners within national and international companies, NGOs;
  - Integrating OSH chapters into already existing training material and training programmes by:
    - Government agencies
    - Employer associations and the cooperative system
    - Worker organizations
    - Coffee sustainability initiatives
    - Supplier networks by national and international coffee buyers;
- Develop target group specific communication and awareness raising material;
- Increase knowledge on OSH requirements in certification schemes;
- Promote availability and access to affordable, user-friendly PPE, taking into consideration differing PPE needs by gender;
- Research to promote access to occupational accident and disease insurance and occupational health services;
- Improve availability of OSH data (e.g., through the piloting of guidance tools on OSH accident and disease reporting, recording and notification) and further research and assessments of OSH conditions on farms and in coffee processing factories;
- Strengthen national OSH frameworks through collaboration with MOLISA to increase its capacities on OSH in agriculture, including the application of OSH Law in agricultural workplaces.

1
Introduction



The Vision Zero Fund (VZF) is a multi-donor initiative that envisions a future with zero workplace accidents and diseases. The VZF implements interventions that prevent work-related accidents, injuries and diseases in global supply chains and supports insurance schemes and compensation mechanisms. It is a multi-donor trust fund, administered by the ILO, supported by several governments, inter-governmental organizations as well as multinational companies.

At the country level, VZF operations aim to foster the prevention and compensation of occupational accidents and diseases through a mix of private and public sphere interventions, including strengthening OSH systems, institutional frameworks, and piloting OSH improvement measures in workplaces. In order to design nuanced and context-specific interventions, all Vision Zero Fund country projects implement an ILO methodology[24] to assess drivers and constraints for OSH improvement in global supply chains.

In Viet Nam, through a comprehensive desk review and stakeholder consultations, the coffee supply chain was selected as the project's single target supply chain from the agriculture sector, following Vision Zero Fund's sector selection criteria.[25] These are:

- The integration in GSCs and overall market position/growth potential.
- The importance for employment generation; it provides a large number of jobs in the local supply chain from which a substantial percentage of economically disadvantaged people benefit, such as small farm households from poor districts and upland ethnic groups.
- The existence of OSH hazards and risks at the different stages of the local supply chain.
- The existence of well-organized structures in the supply chain (sector- and producer associations, unions).
- The South-South learning opportunities and synergies with the VZF country projects in Lao PDR and Latin America (Mexico, Colombia, Honduras), which also focus on coffee.

In addition to these criteria, in this case, the assessment also considered:

- The presence of climate change factors and environmental degradation that threaten the livelihoods of coffee farmers.
- The high potential for replication of project activities in other food and agriculture sub-sectors in Viet Nam, notably plantation cash crops.

VZF Viet Nam seeks to reduce the exposure of workers in the coffee supply chain to OSH hazards and risks through the following outcomes:

- Outcome 1: Strengthened regional and national enabling environments for the promotion of safe and healthy working conditions in the coffee supply chain.
- Outcome 2: Improved legal and policy frameworks to promote and enforce safety and health protection, prevention and compensation in the Viet Nam Coffee supply chain.
- Outcome 3: Increased application of effective safety and health prevention, protection and compensation mechanisms for people of all genders working in the coffee supply chain.

The purpose of the assessment has been to, first, analyse the economics of the coffee value, with a specific view to OSH hazards and risks, drivers and constraints for OSH management and, second, based on the analysis, to design interventions that aim to improve OSH in Viet Nam's coffee supply chain.

The assessment focused on the Lam Dong province. Among the supply chain actors, sound recommendations are designed to facilitate collective action[26] to improve the occupational safety and health of workers in the coffee sector. Both the analysis and intervention design considered climate change and environmental degradation, gender-related aspects,[27] and COVID-19 impact on the value chain during the assessment process.

24 "Vision Zero Fund approach to gender equality" (ILO VZF, 2021a) https://vzf.ilo.org/insights/vision-zero-fund-approach-to-gender-equality/
25 Strategy, 2019-2023, Collective Action for Safe and Healthy Supply Chains (ILO VZF, 2021c p.15) https://live-vzf.pantheonsite.io/wp-content/uploads/2021/04/Vision-zero-Fund-Strategy- .pdf
26 "Collective action for safer and healthier supply chains" (ILO VZF, 2021b) https://vzf.ilo.org/insights/collective-action-for-safer-and-healthier-supply-chains/
27 "Vision Zero Fund approach to gender equality" (ILO VZF, 2021a) https://vzf.ilo.org/insights/vision-zero-fund-approach-to-gender-equality/

2

Brief description of the assessment methodology



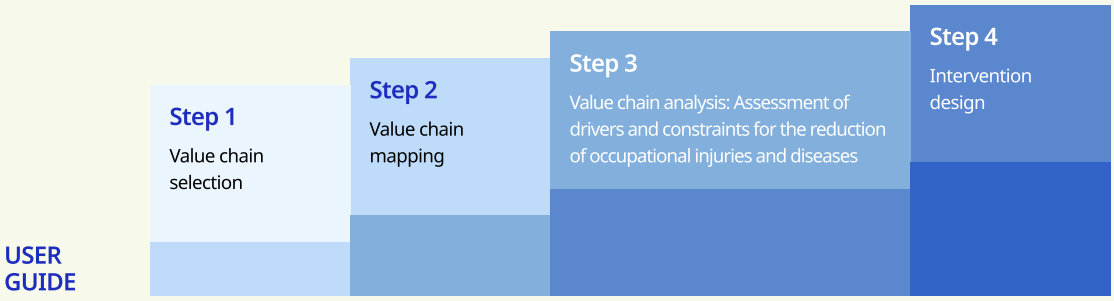
The assignment focused on collecting relevant and sufficient information from different sources and using various techniques to understand the OSH situation among workers employed in the coffee sector in Viet Nam, specifically in the agricultural production of coffee and the further processing of the coffee beans. For data collection, analysis, and clear, concrete interventions, the research team followed the ILO methodology for the assessment of drivers and constraints for OSH improvement in Global Supply Chains (GSC).[28] The assignment, see Figure 1, focused mainly on value chain mapping (step 2), value chain analysis, emphasising drivers and constraints for OSH improvement (step 3), and intervention design (step 4). The methods and tools applied in each step are further clarified below.

The research was divided into three phases spanning a period of approximately four months:

1. Phase 1: Inception phase (21 December 2020 to 1 February 2021)
2. Phase 2: Assessment phase (7 February to 7 March 2021)
3. Phase 3: Validation and reporting phase (8 March to 23 April 2021)

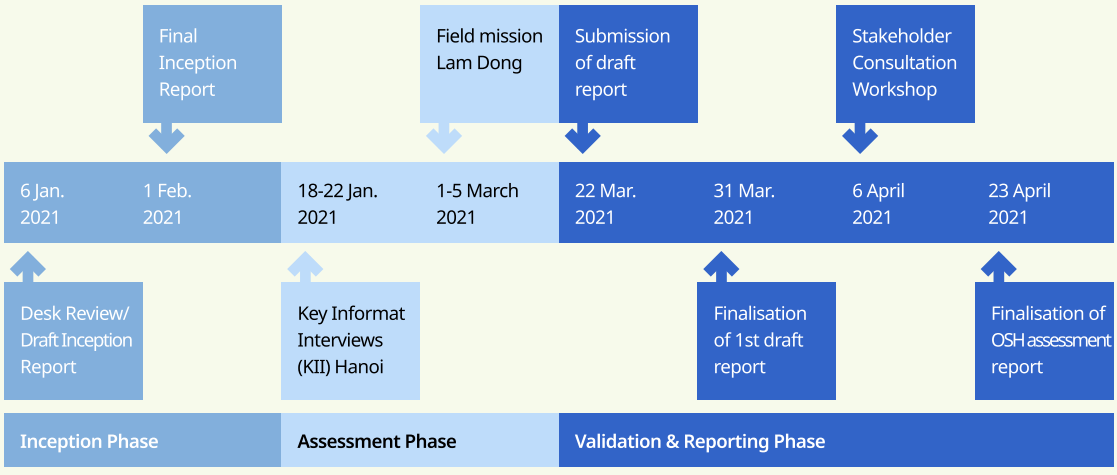
Figure 2 presents the comprehensive timeline of the work process flow, which highlights the different phases of the overall assessment process, relevant dates and the key deliverables.

Figure 1: The four steps of OSH assessment



Source: ILO 2018

Figure 2: Flow Chart of the OSH Assessment Process



28 This methodology was developed under the auspices of the joint ILO-EU project to support G20 work on safer workplaces by improving the knowledge base and safety and health within global supply chains. See ILO, Occupational Safety and Health in Global Value Chains Starterkit - Assessment of drivers and constraints for OSH improvement in global value chains and intervention design, 2018.

A mission to Lam Dong province was conducted from 1 to 5 March 2021 for workplace observations, worker interviews, interviews with managers and owners of coffee farms and processing units, and interviews with other local, relevant stakeholders. Due to the Covid-19 situation, the team was able to visit Lam Dong Province for only five days, which limited the number of face-to-face interviews, workplace observations and FGD at province and district level. The research team addressed information gaps through contacting key coffee supply chain stakeholders in Lam Dong province, online and after the field mission. Additional input from stakeholders was also collected during the OSH assessment validation workshop in early April 2021.

The techniques and tools used during the **assessment phase** can be divided into five types (see Annex 4 for more details):

1. Secondary information research (desk review)
2. Key informant interviews (KII) with actors at the national and province-level (semi-structured interview guides)
3. Workplace observations in coffee cultivation and processing in the Lam Dong province
4. Focus group discussions (FGD) in the Lam Dong Province with workers and employers from farms and processing units
5. Value chain mapping

The desk review established the overall OSH context in the coffee sector and other relevant agricultural sub-sectors and was informed by similar research in Viet Nam and elsewhere. It provided the necessary statistics for the report and helped identify additional sources for primary research. A comprehensive list of documents and websites were studied during the desk review and are presented in Annex 1. This includes, among others, coffee value chain studies, relevant legal documents, and reports on OSH in Viet Nam, the OSH Law 2015 for Viet Nam, ILO publications on OSH and relevant websites.

A total of 18 key informant interviews with government officials, multinational companies, business / cooperative membership organizations and NGOs generated information from different perspectives, providing valuable feedback.

The VZF Viet Nam preselected Lam Dong province for field research for the following reasons:

1. Specific recommendation by the Ministry for Agricultural and Rural Development (MARD)
2. The province of Lam Dong is Viet Nam's second most important coffee producing and processing province, regarding land area under plantation and volume produced
3. Local authorities in Lam Dong province indicated that they would be available to meet with the research team to share information and to facilitate research work at community level

A local researcher, recruited by the research team, helped select the local producers and processors in the two districts of Bao Lam and Di Linh. The two FGD, including the selection of participants, were organized and arranged by the Viet Nam Cooperative Alliance (VCA) of Lam Dong province and their respective, district branch offices.

3

The coffee value chain in Viet Nam



3.1 Products and markets

The global coffee value chain generates an annual revenue of about US$100 billion, and after water, coffee represents the second most consumed drink in the world. In 2019, world coffee production reached almost 170 million, 60kg bags (ICO 2020) and coffee production, export and consumption are increasing yearly. Demand and supply put sustainability of coffee production and coffee farmers' livelihoods and well-being at the centre of research and debates. More than 125 million people around the world depend on coffee for their livelihoods, with around 25 million smallholder farms producing 80 per cent of the world's coffee.[29]

Coffee is a tropical agricultural product. High levels of productivity are achieved in suitable climatic conditions, found in the global south; Asia, Africa and Central and South America. There are four primary types of coffee beans: Arabica *(Coffea arabica)*, Robusta *(Coffea canephora)*, Liberica *(Coffea liberica)*, and Excelsa *(Coffea liberica var. dewevrei)*. Arabica is the most produced type of coffee globally, making up about 60 per cent of global production.

Arabica has a sweeter, more delicate flavour and has less acid than other coffee types. Arabica beans are farmed in areas with elevations of more than 1,000 meters above sea level.

The second most prominent variety of coffee is Robusta, which accounts for about 40 per cent of global production and which is mostly consumed in Europe, the Middle East and Africa. Robusta is a resilient plant, and the variety is known for its solid and harsh flavour and high level of caffeine. The other two types of coffee beans, Liberica and Excelsa, are rare in that they only grow in particular climates, primarily in Southeast Asia, to include Viet Nam. These beans account for less than 1 per cent of the global output and production is too small-scale for farmers to extend their operations.

Coffee beans are usually traded as green beans, roasted beans, ground coffee or soluble coffee products, depending on the level of processing.

Table 1: Global coffee (all types) production (2015-2019)

Coffee prod. in tons	Share in production (%) 2019	2015	2016	2017	2018	2019
World		8 891 891	9 405 297	9 365 306	10 412 185	10 035 576
Brazil	30%	2 647 504	3 024 466	2 684 508	3 552 729	3 009 402
Viet Nam	17%	1 452 999	1 460 800	1 542 398	1 616 307	1 683 971
Colombia	9%	827 750	818 243	851 640	813 420	885 120
Indonesia	8%	639 412	639 305	717 962	756 051	760 963
Ethiopia	5%	457 014	469 091	449 230	494 574	482 561
Honduras	5%	332 747	366 542	477 580	485 517	476 345
Peru	4%	251 938	277 760	337 330	369 622	363 291
India	3%	327 000	348 000	312 000	316 000	319 500
Uganda	3%	229 149	243 061	302 063	284 225	254 088

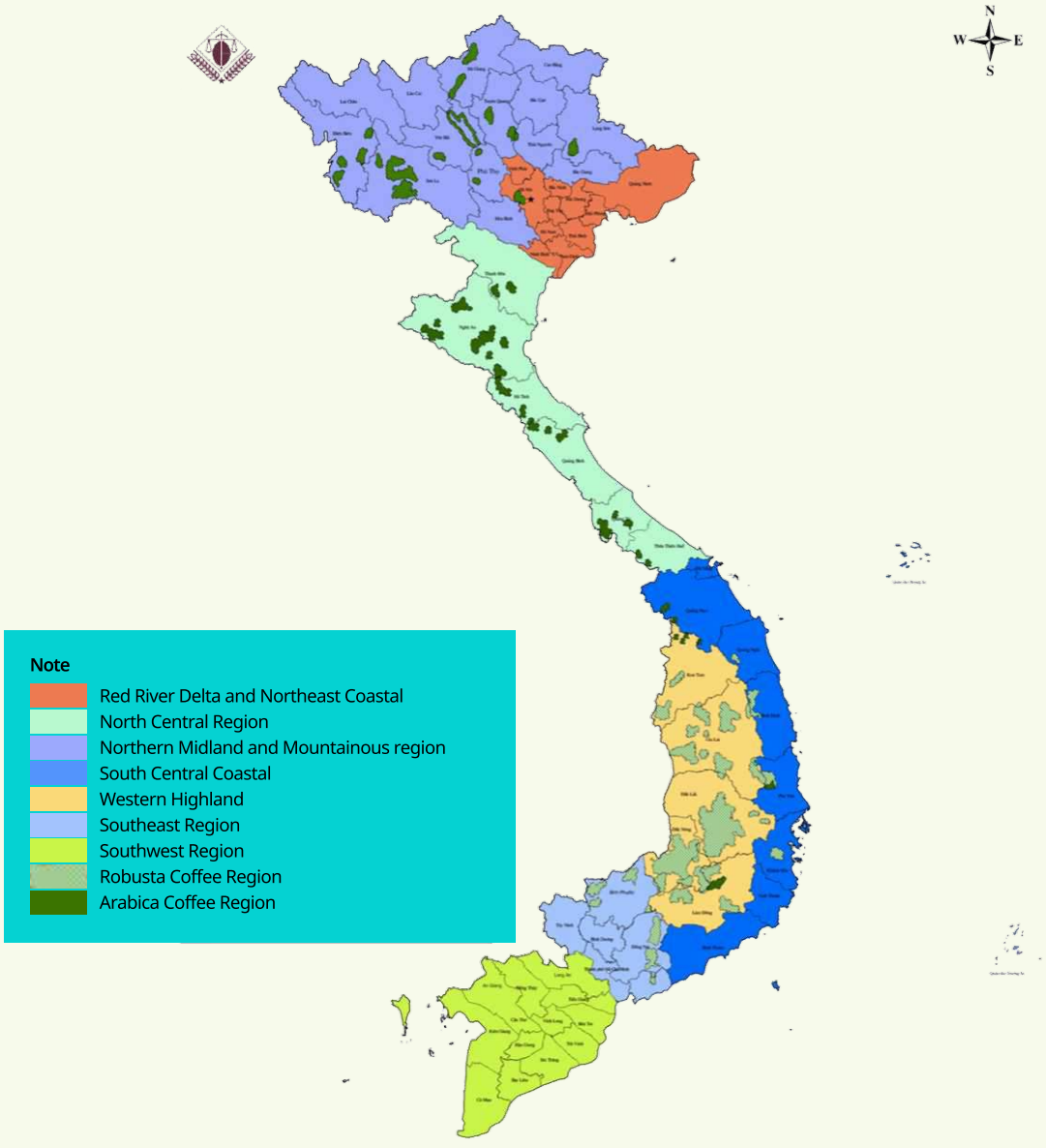
Source: http://www.fao.org/faostat

29 Fair Trade Foundation: Coffee Farmers https://www.fairtrade.org.uk/farmers-and-workers/coffee/

Table 1 presents the top coffee producing countries globally. Viet Nam is the largest coffee producer in Asia, and worldwide, ranks, only after Brazil, with a 17 per cent share of the world's production. At the same time, Viet Nam is the largest producer of Robusta coffee, followed by Brazil, Indonesia, Uganda and India. The largest Arabica coffee producers, however, are Brazil, Colombia, Ethiopia, Honduras and Peru. In Viet Nam, Robusta accounts for 97 per cent of total production and Arabica for the remaining 3 per cent.

Arabica coffee in Viet Nam is mainly cultivated in the high elevations of northern, central Viet Nam and a few pockets within the Central Highlands, including Son La (northwest Viet Nam), Nghe An, Quang Tri (central provinces) and Lam Dong (Central Highlands). Otherwise, the Central Highlands, Viet Nam's main coffee growing area, is dominated by Robusta plantations, to include the areas of Dak Lak (190,000 HA), Lam Dong (162,000 HA), Dak Nong (135,000 HA), Gia Lai (82,000 HA) and Kon Tum (13,500 HA).

Figure 3: Map of coffee-producing areas (2014)



Source: ICO 2019

On average, coffee-producing countries consume 30 per cent of their products domestically and export 70 per cent of the production. The export typically consists of 87 per cent green beans and 13 per cent processed coffee. These shares, however, look different in Viet Nam, where only a 10 per cent-share is consumed domestically, and 90 per cent of the production is exported, predominantly in the form of green beans (97 per cent) or less processed products (3 per cent). The largest export markets for Vietnamese green beans are Germany, United States, Italy and Spain, where the coffee is roasted, further processed into sub-products, consumed domestically or re-exported to other countries (see Table 2). Coffee is among the country's leading 10 agricultural export products. In 2020, Viet Nam exported green beans worth US$2.75 billion, ranking sixth, after wood and wood products (US$12.37 billion), shrimps (US$3.7 billion), vegetables (US$3.27 billion), cashew nuts (US$3.21 billion) and rice (US$3.12 billion).[30]

To upgrade the coffee value chain, Robusta-producing countries are now also engaging in instant coffee production. The same trend can be observed in Viet Nam which has started vertical integration by contributing to the supply of soluble coffee to a competitive, low-margin global market (ICO 2020). In 2020, Viet Nam exported 11,240 tons of instant coffee with a value of US$77.12 million, which equals a global market share of 2.65 per cent.[31]

Based on a methodology developed by the International Trade Center (ITC),[32] assessing the coffee export potential of Viet Nam shows encouraging results. The Export Potential Indicator (EPI) identifies products in which the exporting country has already proven to be internationally competitive and has good prospects of export success in specific target markets.[33] The EPI considers supply, demand and market access conditions for a particular product. Figure 4 shows that globally Viet Nam, after Brazil, for non-roasted coffee (green beans) shows the second most significant absolute difference between potential and actual exports in value, leaving room to realize additional exports worth US$3.8 billion. The untapped potential is 59 per cent.

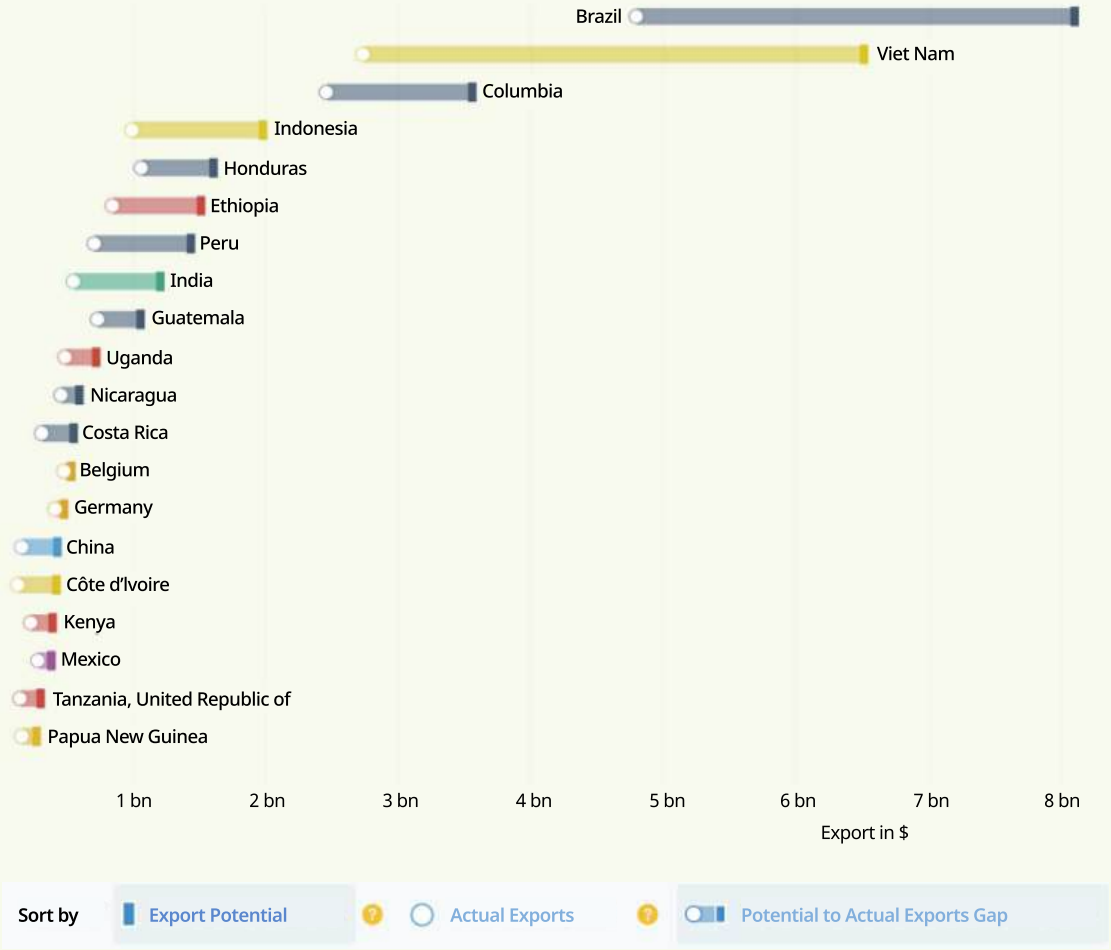
Table 2: Top 10 destinations of coffee exports (green beans) from Viet Nam 2018

Name	2016	Share
Germany	382 175 903	13%
United States of America	329 143 839	11%
Italy	256 574 091	9%
Spain	215 070 542	7%
Japan	159 607 886	6%
Russia	143 048 334	5%
Algeria	132 481 061	5%
United Kingdom	108 446 825	4%
Thailand	106 467 477	4%
Indonesia	104 137 188	4%

Source: Atlas of Economic Complexity, www.atlas.cid.harvard.edu/

30 Ministry of Industry and Trade, Vietnam Institute of Strategy and Policy for Industry and Trade https://vioit.org.vn/en/strategy-policy/export-of-key-agricultural-products-of-vietnam--opportunities-and-challenges-in-the-coming-time-4384.4144.htm
31 Tridge. https://www.tridge.com/products/instant-coffee
32 ITC, Export Potential Map. https://exportpotential.intracen.org
33 ITC, Export Potential Map. https://exportpotential.intracen.org

Figure 4: ITC Export Potential Map of green coffee beans globally



Source: ITC, Export Potential Map https://exportpotential.intracen.org

3.2 Structure of the value chain

The simplified coffee value chain map in Figure 5 depicts and describes information and data on:

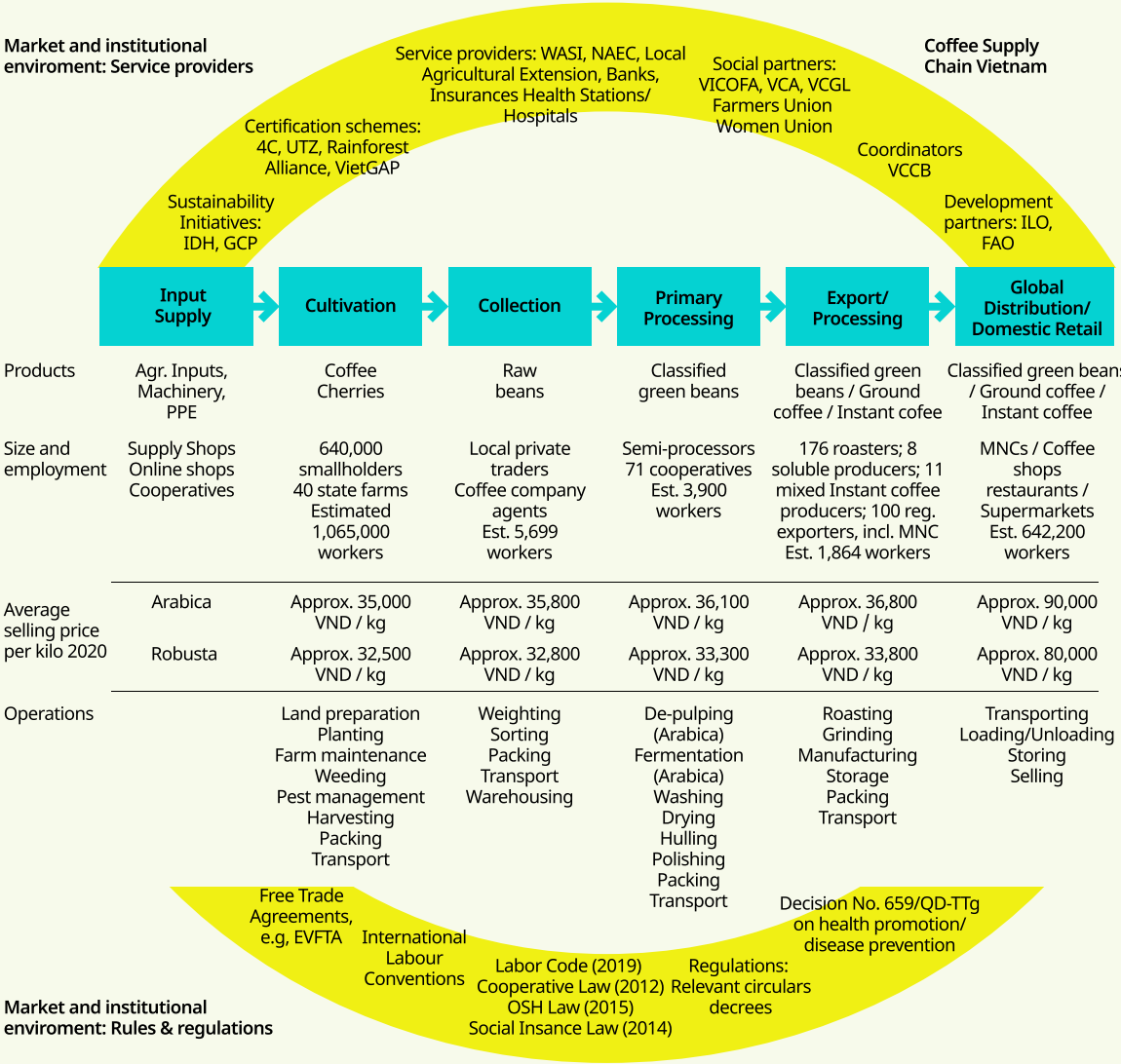
- Products and (domestic/export) market
- Production/processing units, size and employment
- Average selling prices
- Types of operation
- Supporting functions and services
- Enabling environment (market and institutional system)

The value chain mapping table (see Annex 2) presents the following characteristics:

- Typology of actors
- Costs and profits
- Main occupational hazards and risk factors at each value chain stage

Introduced by the French in the nineteenth century, coffee cultivation and consumption have become an element of Vietnamese culture. Coffee production increased from a low level in the 1990s to over 28 million 60-kg bags in 2019 (see Table 3).

Figure 5: Coffee Value Chain Map of Viet Nam



Source: Compiled by the Research team (2021), including data by ICO (2019) and own research data

Table 3: Coffee production in Viet Nam (2015-2019)

Coffee	2015	2016	2017	2018	2019
Area harvested (HA)	593 800	597 597	605 178	618 879	622 637
Yield (tons/HA)	2.4	2.4	2.6	2.6	2.7
Production (tons)	1 452 999	1 460 800	1 542 398	1 616 307	1 683 971

Source: http://www.fao.org/faostat

Through policy measures, the government aims to stabilize the coffee production coverage area at about 600,000 HA, and through additional measures, improve coffee quality. Viet Nam has one of the highest coffee cultivation productivities worldwide, with a yield per hectare above 2.4 metric tons.

Challenges of the coffee sector

The high productivity of coffee cultivation in Viet Nam, resulting from intensive farming practices, has its downsides. One consequence is the over-fertilization of coffee trees, which contaminates water and minimizes future coffee yields. A further result of the expanding coffee cultivation area during the last 30 years is deforestation, soil depletion and reduction of deep-water resources. Notably, the unshaded plantation method,[34] which still dominates, requiring high volumes of water input (ICO 2019). The situation is aggravated by climate change impacts, particularly rising temperatures, changing rain patterns, extreme weather, and threats of spreading pests and diseases. Another challenge of the coffee production in Viet Nam is its ageing coffee trees, which the government is addressing through an extensive replanting programme.

Coffee price volatility remains a significant challenge to farmers. The impact of the COVID-19 pandemic on both coffee supply and demand aggravated coffee price instability.[35] Since 2021, though, selling prices for Robusta have been increasing, reaching VND 40,000 - 50,000 / per kg in May 2023.

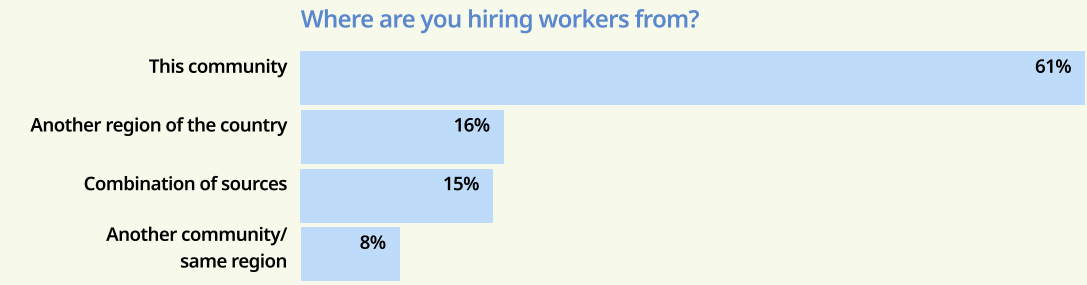
The introduction of diversified cropping systems in the Central Highlands, where coffee trees are planted alongside other crops like avocado, durian and pepper, is one method to mitigate the impact of these challenges on farmers' livelihoods. Crop diversification has the potential to promote resilience to climate change and to increase farmers' income, including during periods of declining coffee prices and plantation rejuvenation. Inter-cropping in combination with improved fertilizer management and irrigation practices, will also lead to a decrease in input costs and water savings.[36]

Workers in the coffee sector

As per GSO data of 2021, across all sectors in Viet Nam, the employed workforce amounted to 49 million workers[37], of which 47 per cent were women. An estimated 32 per cent of the workforce, or about 15.4 million, were employed with formal contracts that define labour relations and coverage by social insurance and health insurance. The insurance premiums are partly paid by both the employer and the employee. Under the OSH Law (2015), employers need to provide for medical check-ups to detect occupational diseases, as well as provide compensation for victims of occupational accidents and diseases.[38] Health check-ups for formal workers at the community level are performed at community health stations.[39] However, 68 per cent of the workforce, or around 33.6 million[40], were working informally, including in agriculture, aquaculture and forestry. As informal workers lack written contractual agreements with their employers, they are, for the most part, not covered by social insurance. Their working environment is not usually assessed for occupational safety and health risks which increases their potential exposure to workplace hazards and risks.

34 Shade-grown coffee is a form of the crop produced from coffee plants grown under a canopy of trees. An unshaded coffee plantation means growing coffee without the shade provided by inter-cropped trees.
35 International Coffee Organization Coffee Break Series N° 2. May 2020 https://www.ico.org/documents/cy2019-20/coffee-break-series-2e.pdf
36 https://www.iucn.org/sites/default/files/content/documents/2020/200713_bridge_3s_ch_coffee_revised_clean-_final2.pdf
37 GSO 2023: As per the GSO quarterly report for Q1 2023, the total employed workforce in Viet Nam reached 52.2 million.
38 OSH Law (2015), Art.7, 2.b
39 Health stations at the community level are operating under the Ministry of Health. They are to perform medical examinations and treatment, first aid and emergency aid, reproductive healthcare, and provide essential medicines, including vaccines and traditional medicine.
40 GSO 2021: Overall situation of informal workers in Vietnam

Figure 6: Recruitment of hired seasonal workers for coffee cultivation and harvesting



Source: Enveritas (2021a)

In coffee farming, many smallholder farms, needing support beyond the work performed by family members, recruit permanent workers for the cultivation of coffee trees. In addition, seasonal workers are hired during the harvest season. The number of permanent workers employed on coffee farms is estimated to amount to 600,000, whereas the number of seasonal workers employed during the coffee harvest can rise to 800,000 (LDC 2018). About 60 per cent of coffee farms in the Central Highlands hire workers, the majority of whom (61 per cent) are recruited from their communities (Enveritas 2021a).

Cooperatives employ another group of approximately 3,900 workers in the coffee sector. As they are formally employed, the Viet Nam Labour Code defines the terms and conditions of their contracts. In the coffee area of Cau Dat in Da Lat City (about 120 HA), which mainly grows Arabica coffee, typically six labourers work per HA during the harvest season. In the peak season, this means a total employment of about 700 workers. The small number of employers interviewed in this district reported that they provide accommodation for workers from neighbouring provinces and equip them with basic PPE. They also stated that they would cover seasonal workers' medical costs if occupational accidents or diseases occur.

In coffee collection and processing, seasonal workers are recruited during the peak season, primarily for loading and unloading tasks. During this period, the number of workers responsible for collection grows to 5,700 and 3,900 for processing.

Recruitment happens either directly or, indirectly, via the logistics/transport service companies that send their trucks with workers, or via labour brokers that recruit seasonal workers from other provinces during the harvest season. While the transport companies take health and injury insurances for their permanent workers and conduct health checks every six months,[41] labour brokers do not usually provide both insurances and health checks. In coffee processing, women workers are generally responsible for changing bags and cleaning the processing workshops, while male workers are responsible for carrying heavy coffee bags. According to group interviews with workers, there is no written protocol for these gender-differentiated task assignments nor are there different labour contracts or difference in pay. This practice of gender-based task division is purely based on informal agreements between peers and work teams. If processors recruit seasonal workers, in most cases, they work with a verbal agreement and do not receive a written contract. According to interviews with owners or managers there is goodwill in case of accident or injury and the employer will bear the cost of treatment. All types of workers receive a fixed salary plus a commission, depending on the amount of coffee handled. The monthly income during the peak season is between 14 and15 million Vietnamese Dong, which is four to five times higher than the current minimum wage.[42]

41 Employers must provide health check-ups for workers at least once a year. For workers performing heavy, toxic, hazardous work/occupations or extremely heavy, toxic, hazardous work/occupations, workers with disabilities, minor workers or elderly workers, they must be provided with health check-ups at least once every six months. (Vietnam OSH Law, 2015, Art. 21.)
42 Since 1 July 2020, the minimum wage in the DI Ling district is Vietnamese Dong 3.43 million per month and in the Bao Lam district, 3.07 million per month. https://luatvietnam.vn/lao-dong/nghi-dinh-90-2019-nd-cp-muc-luong-toi-30hieu-vung-178302-d1.html

3.3 Key stages of production

To fully understand the role of all value chain actors and their supporters, it is essential to map and describe the key functions of the coffee value chain from the initial input and production stages to the end consumers.

Figure 7 presents the aggregate value throughout, cost occurrence and profit generation in the value chain of uncertified Robusta coffee. Coffee farmers generate about 5.6 per cent profit measured against the final consumer price of the product paid in either the domestic or international retail markets. The profit margin at the collectors and processors level is thin but increases for exporters and again more strongly for final retailers.

Input supply

The general farm input supply comes from private enterprises, which are often also involved in local coffee trading.

A model of cooperatives co-owned by input suppliers and coffee traders has become popular in the Central Highlands and other coffee-cultivating areas. In 2019, 71 such supply/trader coffee cooperatives were established. The co-owners source and sell the supply of seedlings, fertilizer, pesticides and water and, if the associated members (farmers) are agreeable, they commit to purchasing all harvests.

These cooperatives do not provide input material to associated members for free, nor do they interfere with the members' product sales; the associated members decide for themselves who to sell to and for how much. The benefit of joining these cooperatives is that associated members can buy input material at a lower price, due to the advantage of bulk purchases, and receive loans or are granted late payment options. These cooperatives are often involved in semi-processing, before selling the green beans to international buyers or domestic roasters (ICO 2019).

Figure 7: Selling Prices, Costs, Profits for Robusta coffee value chain in Viet Nam

	Cultivation	Collection	Semi-processing	Export/ Processing	Retail/ End market
Prices (Robusta)	VND 32,500/kg	VND 32,800/kg	VND 33,300/kg	VND 33,800/kg	VND 80,000/kg
Cost	VND 28,000/kg	VND 32,700/kg	VND 33,000/kg	VND 33,500/kg	VND 62,000/kg
Profits	VND 4,500/kg	VND 100/kg	VND 300/kg	VND 300/kg	VND 18,000/kg

Source: Research team (April 2021)

Cultivation

The coffee production in Viet Nam is dominated by 95 per cent privately operated farms, predominantly smallholder farmers (85 per cent or 480,000 HA) with a size below 2 HA (USDA 2020). Of this area, 63 per cent are household farms with even less than 1 HA per household. More than 640,000 smallholdings are involved in coffee production in Viet Nam (ICO 2019).

About 40 state-owned farms cultivating 27,000 HA of coffee manage the remaining 5 per cent of coffee plantations. Under MARD, the Viet Nam Coffee Corporation (VINACAFE) is a state-owned enterprise (SOE) holding that manages 27 SOEs. These SOEs comprise enterprises in all stages of the value chain, including the 40 state-run farms and processors, traders, and service providers offering credits, fertilizer, irrigation, research and roasting services. VINACAFE and MARD are in the process of privatizing many of the SOEs in the coffee sector (ICO 2019).

Farmers harvest coffee cherries primarily by hand. There are two possible techniques: either stripping both unripe and ripe cherries from the coffee trees or picking only ripe cherries, leaving the unripe, green ones on the trees. The second technique results in better coffee quality. However, in Viet Nam, both unripe and ripe cherries are stripped from the trees simultaneously during harvesting, at least in the second and third round of cherry picking within one harvesting season.

Collection

Local private collectors are the middlemen between farmers and exporters or coffee factories. They buy coffee beans from farmers and sell them to their clients. Processors source their primary products from local collectors, who maintain a reliable and long-standing business relationship with them. Some coffee companies use their agents when sourcing coffee. Farmers with sustainability certification can sell their coffee more easily to processors directly, avoiding local collectors' services (Nguyen and Sarker 2018).

Processing

The coffee bean is enclosed by many layers to include the silver skin, parchment, pectin, pulp, and the outer skin. Dry-processing and wet-processing are the two main methods to extract the bean. Dry-processed (natural) coffee is dried in the whole cherry before de-husking. Dry-processing is mainly applied for Robusta coffee. Wet-processed or washed coffee is dried without the cherry. Washed coffee is de-pulped, then fermented to promote the separation of any remaining pectin still attached to the bean and parchment, then washed clean before drying. Wet-processing is the preferred method for Arabica coffee.

The central highlands and the southeast regions host hundreds of green bean processing mills using either wet or dry processing technology (ICO 2019). In Viet Nam, about 80 per cent of post-harvest processing happens by smallholder producers, collectors or primary processors. Coffee farmers or processors dry cherries under the sunlight, or increasingly, in mechanical driers fuelled with coffee husks or coal. Drying lasts for about 12 to 16 hours, while humidity drops to about 10 per cent. Larger-scale coffee processors primarily use the more advanced wet processing technology.

In 2019, 176 processing units engaged in advanced processing of coffee to produce roasted, ground and soluble coffee. Their total roasting and grinding capacity were 52,000 tons per year.

Eight units manufactured soluble coffee with a capacity of 37,000 tons per year. A total of 11 facilities, with a capacity of 140,000 tons per year, produced mixed instant coffee (ICO 2019).

Export

More than 100 coffee exporters are registered in Viet Nam, some of which are joint ventures with international investors engaged in processing and exporting. All large multinational coffee traders and roasters operate through direct investments or joint ventures in Viet Nam (ICO 2019).

While the majority of its exports are green beans, Viet Nam could expand its export volume of roasted coffee significantly and also manage to achieve higher unit prices for roasted coffee over time. The amount of soluble coffee has grown as well to 1.37 million bags in 2018/19, even though the unit value of its soluble coffee exports decreased substantially (ICO 2020). The Philippines, Russia, Japan, United Arab Emirates and Poland are the main destinations of Viet Nam's soluble coffee exports.

The European-Vietnam Free Trade Agreement (EVFTA),[43] which came into force in August 2020, includes tariff reductions for processed coffee. This is relevant for 26 per cent of Viet Nam's soluble coffee export shipments going to the European Union (EU), while green bean shipments to the EU amount to 46 per cent of its unprocessed coffee exports (ICO 2020). As part of the new generation of FTAs, EVFTA contains essential provisions to safeguard labour rights and the environment in its Trade and Sustainable Development chapter. Obligations under this chapter[44] also extend to OSH and are rooted in Viet Nam's ILO membership, the *ILO Declaration on Fundamental Principles and Rights at Work and its follow-up* (ILO, 2022),[45] and *the ILO Decent Work Agenda.*[46]

Distribution and consumption

Domestic consumption of coffee in Viet Nam is approximately 10 per cent of total production. The domestic consumption for the year 2019/20 was estimated to be about 3.1 million bags. In Viet Nam, coffee consumption in café shops accounts for more than 70 per cent of total consumption in the country, as this is where Vietnamese usually enjoy their coffee (Nguyen and Mai 2017). The growth of the number of local and foreign-run coffee shops and cafés, together with instant coffee gaining popularity, drives local coffee consumption (USDA 2020).

In 2020, the first year of the global COVID-19 pandemic, social distancing and the temporary closure of cafés and restaurants lasted about five to six weeks in Viet Nam, which slightly impacted the food and beverage sector and, thus, coffee consumption. During a prolonged strict lockdown in 2021, however, local consumption in coffee shops drastically declined, and many closed temporarily. These businesses only started to recover in the first quarter of 2022. In general, during the COVID-19 pandemic, consumers changed their buying habits by stock-piling pre-packaged food and drinks, including ground and instant coffee, before, during and after the lockdown (USDA 2020).

Globally, COVID-19 disrupted trade flows, including coffee. The pandemic affected labour supply, either directly due to illness or indirectly, as social distancing measures, lockdowns and travel restrictions limited movement. Internal logistics networks and the functioning of the export infrastructure were also disrupted, resulting in shipment delays as well as increased trade and transaction costs.[47]

As reported by the Viet Nam Coffee and Cocoa Association (VICOFA), during the 2021/22 coffee harvest season, Viet Nam coffee exporters struggled to transport coffee beans to ports for shipment.[48] The harvest was also affected by a shortage of labour due to inter-provincial travel restrictions. The COVID-19 pandemic made Viet Nam's coffee exports miss its US$3-billion target in 2020 by about US$300 million. In 2020, Viet Nam exported only 1.51 million tons of coffee worth US$2.7 billion, which was down 8.8 per cent in volume and 7.2 per cent in value against 2019. Falling coffee exports, continued into 2020, both in terms of volume and price.[49]

Despite pandemic-related challenges, coffee exports in the last month of 2021 made a dramatic jump and reached 169,000 tons worth US$379 million. This reflects a 57.6 per cent increase in volume and 56.9 per cent increase in value compared to November 2021. These numbers, when compared again to December 2002, reflect an additional 21.8 per cent in volume increase and 49.6 per cent in value. As a result, coffee export turnover in 2021 reached US$ 3.073 billion. This finish in 2021 is mainly due to the high price of coffee globally, thereby positively affecting the price of Viet Nam's coffee exports.[50]

43 More details about the EVFTA are provided in chapter 4.1.
44 EU-Vietnam: Texts of the agreements https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/vietnam/eu-vietnam-agreement/texts-agreements_en
45 ILO 2022 https://www.ilo.org/declaration/thedeclaration/textdeclaration/lang--en/index.htm
46 ILO, decent work https://www.ilo.org/global/topics/decent-work/lang--en/index.htm
47 Country Coffee Profile (ICC 2019) https://www.ico.org/documents/cy2019-20/coffee-break-series-3e.pdf
48 World Coffee Portal (Allegra 2021) https://www.worldcoffeeportal.com/Latest/News/2021/September/Global-coffee-supplies-hit-by-Vietnam-s-fresh-Covi
49 Viet Nam Net Global, "Coffee trade prospect 2021" (January 2021) https://vietnamnet.vn/en/business/coffee-trade-prospect-2021-707929.html
50 "Coffee exports in 2022 will grow due to the increase in prices" (Nong Nghiep, Feb 2022) https://vietnamagriculture.nongnghiep.vn/coffee-exports-in-2022-will-grow-due-to-the-increase-in-prices-d316461.html

3.4 Support structures of the value chain

The institutional environment of Viet Nam's coffee value chain comprises of the following public and semi-public institutions and organizations. Support organizations of the coffee value chain that specifically focus on OSH are presented in chapter 4.4.

3.4.1 Support services by government agencies

The **Ministry for Agricultural and Rural Development (MARD)** is the key ministry for agricultural commodities like coffee. Various departments and organizations subordinated to MARD regulate and supervise Viet Nam's coffee sector. This includes the Department of Crop Production (DCP), the Department for Cooperatives and Rural Development, the Agro-Processing and Market Development Authority (Agrotrade), the National Agricultural Extension Center (NAEC), the International Cooperation Department (ICD), the Viet Nam Coffee Coordination Board (VCCB), and others. Several other institutions carry out agricultural research and development under MARD, such as the Western Highlands Agriculture and Forestry Science Institute in Dak Lak (WASI), the BaVi Research Centre (BRC) and the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD). The latter is expressly set up for research on Arabica in northern Viet Nam. At the provincial level, the Provincial People's Committees and their agriculture and forestry agencies at the province, district and commune levels directly manage the coffee sector (ICO 2019).

As with other commodities, policies and investments under MARD for sustainable resource management aim to stabilize production and increase export revenues, contributing to Viet Nam's integration into the global coffee supply chain (ICO 2020).

The key policy document for the coffee sector in Viet Nam, developed by MARD, is the 2016 Viet Nam Sustainable Coffee Plan (2016-2020, with a vision to 2030). It defines economic objectives for the coffee sector performance and export turnover. The plan's environmental goals include a ceiling for the national coffee cultivation area at 600,000 HA. A total of 80 per cent of this area needs to be cultivated sustainably, which means applying water-saving irrigation methods and using eco-friendly fertilizers and pesticides that are also safe for workers and consumers (ICO 2019). The plan foresees a total coffee production of 1.6 million tons per year with an average productivity of 2.7 tons per HA. The share of wet-processed coffee is planned to increase to 30 per cent, the percentage of instant, roasted and ground coffee to reach 25 per cent of total production, with a total yearly export value of US$ 4.2 billion by 2030. This target was revised by VICOFA in December 2021, which now aims for the Viet Nam coffee sector to achieve an export value of US$ 5 to 6 billion by 2030. To reach this target, VICOFA will work in collaboration with IPSARD under MARD to promote the certification of high-quality coffee brands, re-cultivate and test new varieties of coffee that are high yielding and drought-tolerant. It will also promote trade in the field of processed coffee exports under the EU-Vietnam Free Trade Agreement (EVFTA), the EU-South Korean FTA (EUKFTA), and other countries with FTAs.[51]

Until 2020, MARD had planned to replant and graft a coffee area of 120,000 HA in the central highlands. MARD had reached the renewal of 118,000 HA. The follow-up plan for the period 2021-2025 envisages the expansion of the replanted and grafted area by another 30,000 to 40,000 HA. MARD's approach of replacing trees and improving yields supports the set target of 60,000 HA to maintain a constant coffee cultivation in the central highlands.

51 Nong Nghiep (December 29, 2021) "Coffee industry and the goal of USD 6 billion in export turnover by 2030." https://vietnamagriculture.nongnghiep.vn/coffee-industry-and-the-goal-of-usd-6-billion-in-export-turnover-by-2030-d312176.html

When conditions in a given area are not favourable for coffee cultivation, farmers receive advice to switch to other crops (USDA 2020). MARD also introduced the intercropping technique in coffee plantations with other crops, such as pepper, durian, mango, avocado or macadamia. Intercropping has two advantages. First, it provides shading, windbreaks and moisture retention for the coffee trees. Second, it offers additional jobs and increases the farmers' resilience by ensuring stable income even when coffee prices fall. So far, 100,000 HA of coffee farm areas in the central highlands are intercropped with other commercial crops. (ICO 2019).

The **National Agricultural Extension Centre (NAEC)** under MARD has 100 staff at the national level and steers the agricultural extension centres in 63 provinces, including district and commune stations. At the commune level, there are two to three extension workers. The primary tasks of the NAEC are (1) capacity building of farmers, (2) implementing national development projects, and (3) providing information to farmers. Communication with farmers happens traditionally via mass media and increasingly through websites and mobile phones, including the usage of specialized apps (60 per cent of farmers have mobile phones; 40 per cent smartphones). NAEC is involved in the training design, often in cooperation with international development organizations and certification schemes, and training delivery for each crop, including coffee. OSH components are integrated into technical training modules on coffee, but there is no separate OSH module. The provincial extension services deliver the training as Training-of-Trainers (ToT), followed by Training-of-Farmers (ToF). Training is followed-up by visits of commune extension workers and key farmers (extension farmers) in what is called, farmer coaching visits (FCV). In addition, extension forums occasionally take place, which are special platforms to host panel discussions with extension staff, farmers, and researchers.

The **Western Highlands Agriculture & Forestry Science Institute (WASI)** known formerly as the Coffee Research Institute, creates new coffee varieties with exceptionally high yield and large-sized beans, and has contributed to the development of Robusta coffee.

Since 1976, WASI has been designing breeding programmes. Since 2000, it developed 12 Robusta varieties, of which some appear adaptable to climate change challenges. The Ministry of Industry and Trade (MoIT) plays a crucial role in supporting Vietnamese coffee producers in accessing global coffee markets and integrating into the global supply chain. MoIT publishes a market bulletin of agriculture, forestry and fisheries twice a month in the Vietnamese language via its website,[52] which contains information about the domestic and international coffee markets. It includes price information and analysis for Robusta coffee on major exchanges, such as the London Exchange, the New York Exchange, the Brazilian Exchange, and the coffee bean price in the major coffee production provinces of Viet Nam, such as Lam Dong, Dak Lak, Gia Lai, Dak Nong, Kon Tum, and the port in Ho Chi Minh City.

3.4.2 Support services by social partners and coordinating organizations

The **Viet Nam Chamber of Industry and Commerce (VCCI)** is the national employers' organization for Viet Nam. It represents employers' and business associations of all economic sectors. One of its main functions is to promote trade and business relations at national level and between national and international companies. Its services include trade promotion, legal advice on business matters, the organization of training (including on Labour Code and OSH Law requirements, CSR), the development of tools to promote productivity and competitiveness, and the dissemination of knowledge on various business-related matters through workshops and conferences. The VCCI main office is located in Hanoi. It has branches in HCMC, Danang and several provinces.

52 A bulletin on agricultural, forestry and fishery market issue dated 20/3/2021 can be downloaded from: https://moit.gov.vn/documents/36315/0/B%E1%BA%A3n+tin+Th%E1%BB%8B+tr%C6%B0%E1%BB%9Dng+NLTS+20.3.2021.pdf/ffb876d4-0662-490d-925f-338c3cb53ab8

The **Viet Nam Coffee-Cocoa Association (VICOFA)** is a non-governmental sectoral business association and an affiliate of VCCI. Its objective is to help organize the coffee sector and support the Vietnamese government in developing the coffee sector policy. VICOFA, founded in 1990, represents Viet Nam in international events, forums and organizations, including the International Coffee Organization (ICO) of which Viet Nam is a member. VICOFA is financed by its members and by the government. It has currently 103 members,[53] including SOEs, private companies (among them large coffee farms in the central highlands), foreign-invested companies and one joint commercial bank.

The **Viet Nam Coffee Coordination Board (VCCB)** was set up in 2013 to promote Public-Private Partnerships that aim to foster coffee production in Viet Nam. The VCCB is a network of multinational enterprises, local farmers and collectors, IPSARD and relevant government agencies at the national, provincial and district level. The VCCB is chaired by the Vice Minister of MARD, and other stakeholders are well represented at the vice chair level. Beside its overall mandate to promote PPP in the coffee sector, the VCCB has several specific assignments, including the development of a coffee sector development strategy for Viet Nam, support MARD in implementing the strategy, mobilization of resources from public and private actors to support strategy implementation, provision of trade information and trade promotion. The focus of the coffee sector strategy is to restructure coffee production to be more sustainable and to increase in value. It includes an approach to replace current coffee trees with new, higher-yield varieties. Furthermore, the VCCB is promoting the application of the National Coffee Sustainability curricula to standardize coffee growing and processing processes.

The **Viet Nam Cooperative Alliance (VCA)** coordinates the cooperative movement in Viet Nam. It operates three main offices (HCMC, Hanoi, Quang Nam), six training centres, one research institute and one Trade Promotion and Investment Centre.

The VCA's main mission is to engage in policy consultations, giving advice to the National Assembly and informing the party on cooperative matters. To its cooperative members, of which 65 per cent are engaged in agriculture, VCA provides various services, including advice on market access, cooperative management, modern technology, international standards and international relationships and partnerships. From VCA's viewpoint, OSH compliance is vital for product marketing and to strengthen competitiveness.

Through the amendment of the cooperative law in 2012, the organizational model of cooperatives in Viet Nam changed. Cooperatives now act as service providers, through the supply of agricultural input materials, including fertilizers, rather than producer groups.[54] Regarding employment relationship and contract issues, VCA trains members on legal aspects, insurance requirements and the labour law. Cooperative staff members receive training to deliver further training to cooperative members on selected topics, proposed by the Cooperative Alliance management and identified through training needs assessments among the member cooperatives. On OSH subjects, lecturers are invited from specialized agencies, such as the Social Security Office and OSH consulting companies. The target group for this training falls under category 4, as defined in Decree No. 44/2016/ND-CP of the OSH law, which consists of employees that are not tasked with OSH, sanitation or health work.[55]

The **Viet Nam General Confederation of Labour (VGCL)** is the sole national trade union centre in Viet Nam. Organisational units include Federations of Labour (FOL) at district level, industrial unions, unions of local sectors, corporations, economic groups and ministries, as well as grass root level unions in the public and non-public sector[56]. VGCL membership, to date, exceeds 11 million[57]. VGCL has an OSH Department and provides OSH training to its members primarily through the Viet Nam National Institute of Occupational Safety and Health (VN NIOSH), operating under the VGCL.

53 As per information from the VICOFA member list (August 2022)
54 MP Law Firm: Cooperative Law No. 23/2012/QH13 https://mplaw.vn/en/cooperative-law-no-232012qh13-of-november-20-2012/
55 https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/103518/125790/F120040545/VNM103518%20Vnm.pdf
56 ILO.2021d. Industrial Relations Report 2019: Towards Genuine Collective Bargaining. p.11 https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-hanoi/documents/publication/wcms_831338.pdf
57 Source: VGCL, 2023: http://www.congdoan.vn/tin-tuc/hoat-dong-cong-doan-3569/tap-trung-phat-trien-doan-vien-thanh-lap-cong-doan-co-so-802303.tld#:~:text=Theo%20b%C3%A1o%20c%C3%A1o%20c%E1%BB%A7a%2082,501.234%20%C4%91o%C3%A0n%20vi%C3%AAn%2C%20%C4%91%E1%BA%A1t%2065%25

The **Viet Nam Farmers' Union (VNFU)** plays a central role in organizing support activities for farmers and helping them access support services. The VNFU is organized nation-wide at four levels: national, provincial, district and commune level.[58] With reference to the Vietnam OSH Law (2015), the VNFU has the following rights and responsibilities, including but not limited to: develop OSH policies and legislation for farmers; participate and collaborate in the inspection, monitoring and supervision of the implementation of OSH policies; participate in the investigation of occupational accidents; participate in OSH communication and training to farmers; and collaborate with state agencies in occupational accident and disease prevention.[59] VNFU's engagement in OSH promotion for farmer communities is still at an early stage. When discussing OSH support services, interviewed key informants and FGD participants did not mention activities implemented by the VNFU that aim to support farmers in improving their OSH performance.

The **Vietnam Women's Union (VWU)** is a socio-political organization that represents and defends the legal rights and interests of women in Viet Nam. VWU has a network of 63 provinces and cities, covering villages and hamlets, with more than 19 million members throughout the country. In their action plan from 2017–2022, the VWU proposed targets to provide vocational training and job placement for 75,000 women workers and to support an additional 2,500 women in starting their businesses. Additional VWU targets, in collaboration with other agencies, is to have supported the establishment of 300 women-owned and managed cooperatives by the end of the term.[60]

Research by USAID (2019), suggests that women entrepreneurs in the coffee supply chain, including the cooperative sector, are well represented in coffee trading. They are usually the point of contact to negotiate with farmers and buyers as they are widely considered to be strong negotiators. At the producer level, women participate throughout the different levels of the production process. Drying beans, selling coffee, and negotiating loans and repayments are the tasks where women's involvement appears to be highest.

3.4.3 Support services by sustainability initiatives and the private sector

The **Sustainable Trade Initiative IDH** brings together worldwide over 600 companies and governments to drive new sustainable production and trade models in emerging economies. IDH operates in 30 countries, including Viet Nam, and works in eight economic sectors, including coffee. IDH aims to improve income, labour, including occupational safety and health and the environment (soil, water, low carbon emission production). However, so far OSH is mostly addressed in the context of pesticide application. In Viet Nam, IDH implements the Initiative for Sustainable Landscapes (ISLA),[61] which, between 2016 and 2018, supported over 11,000 farmers in Dak Lak and Lam Dong provinces to produce coffee sustainably. Since 2019, the ISLA introduced "SourceUp" mechanisms,[62] whereby multi-stakeholder coalitions (or compacts), consisting of local governments, private sector, local civil society organizations and producers, work together to lift the base sustainability levels of landscapes. This is done through the Protection-Production-Inclusion (PPI) approach, which aims to improve, among other targets, the environment, sustainable production, as well as farmers' income and social and OSH-related conditions. SourceUp is currently implemented in four districts, including Cu M'gar and Krong Nang (Dak Lak province) and Di Linh and Lac Duong (Lam Dong province).

58 Vietnam Farmer's Union (January 25, 2021) http://vietnamfarmerunion.vn/sitepages/news/1084/106105/joint-efforts-overcoming-difficulties-developing-remarks
59 OSH Law (2015) https://www.ilo.org/dyn/natlex/docs/MONOGRAPH/99774/119205/F-595449136/VNM99774.pdf
60 Viet Nam Women's Union http://vwu.vn/supporting-women-in-business-start-up
61 IDH Landscapes https://www.idhsustainabletrade.com/landscapes/
62 IDH SourceUp https://www.idhsustainabletrade.com/approach/sourceup/

Improvement measures under SourceUp usually cover all crop supply chains that are found in the targeted communes and districts (landscapes). Typical crops in the SourceUp areas are coffee, pepper, and fruits such as avocado and durian.[63]

IDH has also introduced a Service Delivery Model (SDM)[64] to train and provide services to farmers to improve sustainable coffee production, including minimizing the use of pesticides. A number of IDH member companies apply this approach to strengthen farmers' capacities as well as their relationships with farmers as partners and customers in their respective supply chains. The SDM is currently being applied by ACOM, SIMEXCO, and INTIMEX Buon Ma Thuot. It has also been piloted by other stakeholders promoting sustainable coffee cultivation.

The Global Coffee Platform (GCP)[65] is a unique multi-stakeholder membership organization of coffee producers, traders, roasters, retailers, government agencies, civil society and donors to collectively address the most critical sustainability challenges to enhance farmers' economic prosperity, improve well-being, and conserve nature. In Viet Nam, GCP engages in multi-stakeholder dialogue events, research, facilitation of best practices among coffee actors, and capacity-building to increase the supply of sustainably produced coffee. It also promotes the social well-being of coffee farmers, including OSH and gender-related considerations as well as social issues of special relevance for ethnic minority groups. Apart from working with government agencies at all levels (national, provincial, district, community), GCP is working closely with members and partners from national organizations, international development agencies and NGOs (including the VCCB, VICOFA, ILO, GIZ, and IDH). Private actors, such as Nestle, JDE Peet's, Neumann Kaffee Gruppe, engage in GCP activities as well.

Key activities by GCP Viet Nam include promoting linkages among actors of different segments in the coffee supply chain. GCP Viet Nam represents its members' interest in national coffee sustainability platforms (such as VCCB), by institutionalizing favourable policies for the coffee sector, disseminating knowledge and sustainable coffee cultivation practices through direct implementation or collaboration with public and private sector actors, and by facilitating and contributing to knowledge sharing events. In particular, GCP is accelerating the responsible use of agro-inputs, focusing on the ban of hazardous agro-chemicals, such as glyphosate, through its Collective Action Initiative (CAI). This initiative is co-funded and supported by Nestle, JDE Peets, Tchibo, Lavazza Foundation, IDH, Sucden Coffee, Neumann Kaffee Gruppe and the VCCB. Under this CAI, comprehensive research was conducted on residual levels of glyphosate in the soil and coffee beans. As a result, more sustainable alternatives were introduced and disseminated and controlled pilot models on glyphosate alternative solutions were developed, tested and regularly monitored. Upcoming activities will include sustainable weed management practices and exploring options to develop a collective action scheme designed to reduce environmental pollution resulting from used agro-chemical containers.

Furthermore, GCP develops and promotes tools to set baseline standards for and measure the impact of coffee sustainability initiatives, namely the Coffee Sustainability Reference Code.[66] As a global reference, the Coffee Sustainability Code is an outcome-focused framework for worldwide, sustainable green coffee production and primary processing. The framework emphasizes economic, social and environmental dimensions, with the principals related to social dimension covering the right to childhood, human rights, working conditions, and community rights. Indicators under working conditions aim to measure improvements in healthy and hygienic work environments and accommodation, identify occupational hazards and risks, and measure the adoption, implementation and monitoring of risk mitigation plans. OSH training for workers is also a focus area. GCP Viet Nam is currently in the process of promoting the adoption of the Coffee Sustainability Reference Code among its members and partners.

63 IDH Mainpage https://www.idhsustainabletrade.com/
64 IDH Service Delivery Model Analysis https://www.idhsustainabletrade.com/approach/service-delivery-models/
65 Global Coffee Platform https://www.globalcoffeeplatform.org
66 Global Coffee Platform: Coffee Sustainability Reference Code (2021) https://www.globalcoffeeplatform.org/our-work/coffee-sustainability-reference-code/

Major international companies of roasters and traders, including Nestle, JDE Peets, Tchibo, Luis Dreyfus Corporation, Neumann Kaffee Gruppe, Lavazza, ECOM, Olam, and large national companies, such as Intimex and Simexco, play a key role in promoting sustainable coffee production in Viet Nam. Besides supporting multi-stakeholder sustainability initiatives, many of these companies also implement internal sustainability strategies, have adopted Corporate Responsibility policies and plans and ask their suppliers to comply with certification standards (such as Rainforest Alliance (RFA),[67] The Common Code for the Coffee Community (4C),[68] or Fair Trade.)[69]

International companies engage with farmers mostly through national coffee companies (producers, traders) and collectors that form part of their supply chain, as well as service providers (consulting companies, NGOs) and government service agencies (such as agricultural extension workers). Support measures mostly focus on training farmers on sustainable cultivation practices, bean quality improvement and how to meet certification requirements. Some companies deliver training at community level through a network of lead farmers that are part of their supply chain.

Based on interviews with representatives from international companies, their sustainability strategies emphasize activities which aim to assist farmers in adopting environmental-friendly cultivation methods and adapting to climate change challenges (including reduction of pesticide use, responsible use of fertilizer and water, and moving from monoculture to inter-cropping cultivation practices). However, social and health issues, including safety and health in the workplace, are becoming increasingly important elements of such strategies. Interviewed representatives recognize that the coffee supply chain in Viet Nam faces numerous OSH hazards and risks with both coffee processing and coffee cultivation, and that OSH knowledge, especially among smallholder coffee producers, is very low.

Examples of specific OSH improvement measures that international companies are implementing in their supply chains include training on chemical safety when handling agro-chemicals, and machine safety training, including how to safely operate weeding machines.

67 Rainforest Alliance, What Does “Rainforest Alliance Certified” Mean? https://www.rainforest-alliance.org/insights/what-does-rainforest-alliance-certified-mean/
68 4C, Join the 4C Certification Process - Step by Step https://www.4c-services.org/process/
69 Fairtrade International, Fair Trade Standards https://www.globalcoffeeplatform.org/our-work/coffee-sustainability-reference-code/

4

OSH-relevant legal and organizational frameworks for the Viet Nam coffee supply chain



4.1 OSH national legal framework and programmes

4.1.1 OSH national legal framework

The Law on OSH, enacted in 2015, aims to ensure the safety and health of workers by stipulating various requirements for OSH (e.g., identifying hazards, assessing and controlling risks in the workplace, formulating an emergency response plan, providing health examinations, reporting occupational accidents and diseases, establishing a department in charge of OSH, and appointing OSH Officers). It also provides for concrete measures to ensure OSH in the workplace as well as policies relating to the compensation for victims of occupational accidents and diseases, and the government's responsibilities with respect to managing OSH. Three decrees (listed in Table 4) provide guidance for implementing selected OSH Law articles.

The OSH Law extends OSH protection measures to workers in the informal sector[70], which still accounts for 68% of the workforce in Viet Nam. At almost 86% of total employment, informal work is most prevalent in the Central Highlands region, where agricultural employment accounts for more than seven out of every ten jobs (72.1%)[71].

Rights and responsibilities of workers in the informal economy (workers without labour contracts) are summarized below.

Rights:

- To work in safe and healthy conditions (facilitated by the state, society or the family);
- To be provided with OSH information, communication and education;
- To receive OSH training when performing tasks for which there are strict OSH requirements in place;
- To get full compensation in case of suffering from an occupational accident or disease;
- To lodge complaints, disclose information or initiate lawsuits when OSH conditions are hazardous and represent an imminent risk to safety and health, as prescribed by the law.

Responsibilities:

- To follow OSH regulations, in compliance with the law, while performing their work;
- To ensure OSH for co-workers and related people involved in their working process;
- To inform local authorities about unsafe working conditions and processes for their prompt action to eliminate or mitigate OSH risks.

70 Other laws that have extended their coverage to the informal sector include the Employment Law (2013) and the Labor Code (2019).
71 ILO 2021e. Informal Employment in Viet Nam: Trends and determinants https://www.ilo.org/hanoi/Whatwedo/Publications/WCMS_819789/lang--en/index.htm

Table 4: Important legal documents on OSH

Legal Document[72]	Issuing date	Effective date
Law on Occupational Safety and Health No. 84/2015/QH13 of the National Assembly	25/06/2015	01/07/2016
Decree No. 88/2020/ND-CP of the Government detailing and guiding the implementation of certain articles of the Law on Occupational Safety and Health regarding compulsory insurance for occupational accidents and occupational diseases	28/07/2020	28/07/2020
Decree No. 39/2016/ND-CP of the Government detailing the implementation of a number of articles of the Law on Occupational Safety and Health	15/05/2016	01/07/2016
Decree No. 140/2018/ND-CP of the Government detailing some articles of the Law on Occupational Safety and Health, including technical inspection of occupational safety measures, OSH training and monitoring the occupational environment	08/10/2018	08/10/2018
Circular No. 07/2016/TT-BLDTBXH of the Ministry of Labor, War Invalids and Social Affairs on occupational safety and health regulations in producing and trading facilities	15/05/2016	01/07/2016
Circular No. 15/2016/TT-BYT of the Ministry of Health regulating occupational diseases covered by social insurance	15/05/2016	01/07/2016
Circular No. 26/2017/TT-BLDTBXH of the Ministry of Labor, War Invalids and Social Affairs guiding the implementation of the occupational accident insurance regime	20/09/2017	01/12/2017
Labor Code No. 45/2019/QH14 of the National Assembly	20/11/2019	01/01/2021
Decree No. 145/2020/ND-CP of the Government on detailing and guiding the implementation of several articles of the Labor Code regarding working conditions and industrial relations	14/12/2020	01/02/2021
Law on Social Insurance No. 16/2014/L-CTN	20/11/2014	01/01/2016

Source: Atlas of Economic Complexity, www.atlas.cid.harvard.edu/

Additionally, the OSH Law determines measures to prevent workers' exposure to occupational hazards and control risks. Employers in the sectors with high safety and health risks, as regulated in the Circular No. 07/2016/TT-BLDTBXH,[73] are obliged to (i) provide workers with information on OSH, implement OSH prevention measures at the workplace, apply OSH regulations, and ensure that workers receive quality OSH training; (ii) guarantee that workplace, machinery, equipment, supplies, and substances used in production processes meet the OSH technical regulations and standards; (iii) provide workers with adequate Personal Protective Equipment (PPE); (iv) provide health check-ups for workers; and (v) develop OSH schemes[74] to ensure that machinery, equipment, supplies and substances used in production processes, which are subject to strict OSH requirements, are being used safely.

The detailed technical inspection requirements for occupational safety and health, as well as requirements for OSH training and monitoring of the workplace environment are covered by Decree No. 140/2018/NĐ-CP. The Labour Inspection Department under MOLISA prioritizes inspections of larger businesses in the formal sector, which are classified as high-risk workplaces. Due to resource constraints, businesses in agriculture and craft villages are not the focus of OSH inspections and OSH improvement campaigns.

Should a worker have an occupational accident, the employers have the following responsibilities: (i) immediately provide first aid and emergency care for workers who suffered an occupational accident, (ii) pay all medical expenses and full wages during sick leave, pay compensation and allowances for the injured workers.

72 A list of up-to-date legal documents on OSH can be found under https://antoanlaodong.gov.vn/vi/van-ban-phap-luat/0/JCQkJCQ=; for legal documents in general, see: LuatVietnam.vn - Thư viện pháp luật Việt Nam - Cơ sở dữ liệu Luật

73 According to Article 8 of Circular No. 07/2016/TT-BLDTBXH: businesses containing high risks of occupational accidents and diseases are: 1. Coal and petroleum mining and refining; 2. Plastic/ rubber-based chemical production; 3. Production of metal and metal products; 4. Mining and quarrying of non-metallic minerals; 5. Construction; 6. Shipbuilding and repairing; 7. Power generation, distribution and transmission; 8. Processing and storage of fisheries and aquatic products; 9. Manufacturing of garments, apparel, leathers, and shoes; 10. Scrap recycling; and 11. Environmental cleaning.

74 According to Article 29 of the OSH Law (2015), OSH schemes need to include: lists and descriptions of hazardous and toxic factors as well as measures to eliminate or mitigate them; procedures to settle technical incidents causing serious OSH failure; and provision of an emergency rescue plan.

Moreover, the victims of occupational accidents also receive social insurance payment. The regime of compensation payments for occupational accidents and diseases is regulated in detail in Decree No. 88/2020/NĐ-CP, Circular No. 15/2016/TT-BYT and Circular No. 26/2017/TT-BLDTBXH. To receive the compensation from the Social Insurance Fund, employers and employees must participate in the compulsory Social Insurance scheme, as stipulated in the respective requirements under the Labour Code (2019) and the Law on Social Insurance (2014). Production and business establishments with high OSH risks, which do not include agri-businesses and coffee production, must conduct an OSH risk assessment in line with the provisions of Circular No. 07/2016/TT-BLDTBXH. Businesses which employ 300 or more persons must have at least one full-time staff and/or a unit in charge of OSH, following detailed instructions in Decree No. 39/2016/ND-CP. These businesses must also submit annual reports on the implementation of OSH measures to the local DOLISA and the Department of Health (DoH), according to Circular 07/2016/TT-BLDTBXH. Businesses employing less than 300 persons must have at least one medical practitioner, as detailed in Decree No. 39/2016/ND-CP.

OSH Regulations for women workers, minor workers and workers with disabilities shall comply with provisions of the Labour Code 2019 (specified in Decree No. 145/2020/ND-CP), the Law on People with Disabilities, and the OSH Law (2015). Under the chapter 'Female Employees and Gender Equality', Decree No.145/2020/ND-CP includes, among others, articles on preventing sexual harassment, the provision of lactation rooms and kindergartens, the provision of health check-ups for women employees as well as flexible rest periods for people who are pregnant, nursing or menstruating. These articles apply for companies with a large number of women employees[75] or that are located in worker-populated areas.[76]

The Labour Code No. 45/2019/QH14 came into effect on 1 January 2021. Changes in the New Labor Code regarding labour contracts, working time, rest time and salary, retirement ages, and employee representative organizations are expected to significantly impact enterprises and organizations recruiting workers in Viet Nam.

The Decree No. 145/2020/ND-CP, in effect since 1 February 2021, besides including OSH-related articles with special relevance for women workers, also guides the implementation of a number of other critical Labor Code requirements, such as on workplace dialogue/ industrial relations, contracts, overtime payment, domestic workers, and recruiting workers through recruitment agencies (such 'Leased workers'[77] must follow regulations, procedures and measures issued by the company with which they have signed the contract).

The Labour Code has broadened the definition of 'employee' to means "a person who works for an employer under an agreement, is paid, managed and supervised by the employer". The Labor Code does not specify the type of agreement. This also extends the scope of the Labour Code to workers employed temporarily, for example as seasonal labour with or without a written contract, if an agreement with the employer is in place. In terms of OSH, this means that they would have the same rights and responsibilities as employees with permanent contracts.

Under the Labour Code, there are now only two types of labour contracts: definite term labour contracts with 36 months or less; and indefinite-term labour contracts. The detailed regulations on labour contracts are stipulated in Decree No. 145/2020/ND-CP.

The Labour Code continues to regulate working hours, which must not exceed 8 hours per day or 48 hours per week. The monthly overtime cap has been increased from 30 hours to 40 hours, and employers are permitted to organize overtime work of up to 300 hours a year in some business areas, which includes businesses in agriculture production. In a recent National Assembly Decree, valid from 1 April to 31 December 2022, the Vietnamese Government increased the overtime cap further, to 60 hours per month, while the maximum overtime hours per year remained the same.[78] The Decree applied to all economic sectors and was expected to help the economy by increasing production capacity to cope with production delays and labour shortage, caused by the COVID-19 pandemic.

75 Decree No.145/2020/ND-CP defines 'large number of female employees' as follows: 10 - 99 female employees that account for at least 50% of the total number of employees; 100 - 999 female employees that account for at least 30% of the total number of employees; 1000 female employees or more.
76 Decree No.145/2020/ND-CP defines 'worker-populated' areas as follows: 1. Any industrial zone, industrial complex, processing and exporting zone, economic zone or high-tech zone (hereinafter referred to as "industrial zone") that has at least 5000 workers with social insurance in the enterprises within in the industrial zone; 2. Any commune and commune-level town with at least 3000 workers having registered permanent or temporary residences therein.
77 The worker who signs a labour contract with a company, such as through a recruitment agency, to work for another company (see Decree No.145/2020/ND-CP).
78 VN Express International, "The Rise of Overtime Cap in 10 years" (March 2022) https://e.vnexpress.net/infographics/economy/the-rise-of-overtime-cap-in-10-years-4443294.html

Since January 2021, the retirement age of employees under ordinary working conditions is 60 years + 3 months for men and 55 years + 4 months for women. It increases for men by 3 months each successive year until he reaches 62 years in 2028. For women, it increases by 4 months each successive year until she reaches 60 years in 2035.[79] Employees carrying out extremely heavy and hazardous[80] work may retire at a younger age but not by more than five years earlier than the retirement age of employees working in conditions not classified as heavy and hazardous.

4.1.2 OSH programmes

The National Program on Occupational Safety and Health for the period 2021-2025[81] (Resolution No.19/NQ-CP) was issued and came into effect on 16 February 2022. It focuses on:

- Prevention of occupational accidents and diseases;
- Improvement of occupational health services for workers;
- Provision of training on OSH for numerous target groups (including workers performing high-risk jobs, and OSH practitioners from district level authorities, export processing zones, grass root level health facilities, craft villages and cooperatives);
- Improvement of compensation and allowances for those suffering occupational accidents and diseases; and
- Improvement of reporting and investigation of fatal occupational accidents.

Until 2025, the program aims to achieve eight targets for these areas, such as an annual reduction of fatal occupational accidents by 4 per cent. While multiple state agencies, at both national and provincial level, as well as employer and worker organizations are involved in the implementation of the program, the prime responsibility for its implementation lies with MOLISA.

The Program of employee health promotion and occupational disease prevention for the period of 2020-2030[82] (the Decision No. 659/QD-TTg) aims to protect, care for and promote employee's health. It encourages healthy lifestyles and nutrition in the workplace, and helps employees prevent occupational and other diseases. The program under the responsibility of the Ministry of Health (MoH) targets developing a national data system to monitor the health conditions and occupational diseases in the work environment; to integrate primary healthcare services for employees without employment contracts at grassroots health facilities, and to ensure that 100 per cent of people suffering from occupational accidents and diseases receive first aid at the workplace, and after that, medical examination, treatment and functional rehabilitation. The program prioritizes 15 nationwide social-policy projects,[83] to be implemented by the Ministry of Health, MOLISA, and VGCL, and is funded by the State budget.

79 See Labour Code 2019, Art. 169, clause 2, and Decree 135/2020/ND-CP, Art. 4.
80 As per definition by MOLISA, "heavy and hazardous work" includes, among others, the manufacturing, using, storing and transporting of dangerous and hazardous chemicals, and the assembling, operating, maintaining, repairing and cleaning of grinding, sawing, and milling machines; reference: Circular no.13/2016/TT-BLDTBXH on "List of jobs with strict requirements for occupational health and safety".
81 See Resolution No.19/NQ-CP of February 16, 2022 "Promulgating the National Program on Occupational Safety and Health for the 2021-2025 period". The program for this period is the fourth National OSH Program. It follows the National OSH Programs for the periods 2006-2010, 2011-2015, and 2016-2020.
82 MOLISA. http://english.molisa.gov.vn/Pages/Document/Detail.aspx?Id=39589
83 A list of projects is provided in the annex of Decision No. 659/QD-TTg

4.2 International Labour Standards

As of September 2022, Viet Nam has ratified 25 ILO Conventions,[84] including 9 out of 10 core Conventions, 3 out of 4 Governance Conventions, and 13 out of 176 Technical Conventions. Of the 25 ratified Conventions 23 are in force and 2 have been denounced.[85]

All core Conventions are relevant and need to be applied to achieve decent work for workers in agriculture throughout supply chains, including coffee. They also constitute key elements of the new generation Free Trade Agreements that Viet Nam has signed, where they are reflected in the respective chapters on Trade and Sustainable Development (EVFTA) and Labour (CP-TPP). These Conventions are:

- C029: The Forced Labour Convention, 1930; (ratified by Viet Nam in 2007);
- C087: The Freedom of Association and Protection of the Right to Organise Convention, 1948; (not yet ratified by Viet Nam);
- C098: The Right to Organise and Collective Bargaining Convention, 1949; (ratified by Viet Nam in 2019);
- C100: The Equal Remuneration Convention, 1951; (ratified by Viet Nam in 1997);
- C105: Abolition of Forced Labour Convention, 1957; (ratified by Viet Nam in 2020);
- C111: Discrimination in Employment and Occupation Convention, 1958; (ratified by Viet Nam in 1997);
- C138: The Minimum Age Convention, 1973; (ratified by Viet Nam in 2003);
- C155: The Occupational Safety and Health Convention, 1981; ratified by Viet Nam in 1994);
- C182: The Worst Forms of Child Labour Convention, 1999; (ratified by Viet Nam in 2000);
- C187: The Promotional OSH Framework Convention, 2006; (ratified by Viet Nam in 2014).

The OSH-related conventions Nos 155 and 187, ratified by Viet Nam in 1994 and 2014 respectively, have substantially gained in importance as OSH was added to the Fundamental Principles and Rights at Work at the International Labour Conference (ILC) in June 2022, becoming the fifth core labour standard.

- Convention No. 155 provides for the adoption of a coherent national OSH policy, as well as action to be taken by governments and within enterprises to promote OSH to improve working conditions and prevent occupational accidents and diseases;
- Convention No. 187 promotes a preventive safety and health culture by focusing on the development of OSH frameworks through national OSH systems and programmes;
- Convention Nos 155 and 187 are aimed at establishing and implementing coherent national policies on OSH through dialogue between government, workers' and employers' organizations.

In 1994, Viet Nam ratified, the Labour Inspection Convention, 1947 (No. 81).[86] It describes Viet Nam's obligations to inspect OSH conditions in workplaces and to ensure compliance with OSH law requirements.

84 For a full list of conventions ratified by Vietnam: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::p11200_country_id:103004
85 The denounced Conventions include C005 Minimum Age (Industry) Convention, 1919; and C123 Minimum Age (Underground Work) Convention 1965: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::p11200_country_id:1030040
86 C081 - Labour Inspection Convention, 1947 (No. 81) https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312226:NO

4.3 OSH institutions

As per information of MOLISA (May 2023), the MOLISA Labour Inspection Department employs 450 labour inspectors who manage to inspect annually only a fraction of an estimated 800,000 enterprises operating in Viet Nam. The inspection unit has a focus on high-risk industries such as oil, mining and construction. Due to capacity constraints, inspections in agriculture, including agro-processing enterprises, hardly take place. State-owned coffee processors are not subject to labour inspections but prepare and submit an annual report about labour safety to MOLISA.

A Prime Minister decision[87] prohibits multiple inspections of a single enterprise by different regulatory agencies. Therefore, inspections are to be done jointly by officials from various government agencies, such as Health, Labour and Environment, that visit a company together.

The DOLISA at provincial level is a government agency under supervision of the Provincial People's Committee and special guidance of MOLISA. Its functions include taking care of: employment and labour issues (including wages and salaries), vocational training, social insurance (compulsory and voluntary), occupational safety, inspections, people who made special contributions to the country, social protection, child protection and care, gender equality, control and prevention of social problems, and public administration services that fall under DOLISA's management. They also implement other tasks as assigned by the Provincial People's Committee[88]. Given their many responsibilities, DOLISA staff can spend for inspections approximately only 30% of their work time.

At the provincial level, the Safe Work Department under DOLISA prepares action plans to assist companies to organize their work safely, assess the safety of the workplace environment, and conduct safety tests of equipment. The department collaborates with consultants to organize OSH training courses for companies, particularly for those performing hazardous work. Such training focuses on introducing and developing OSH management systems according to ISO 45001-2018. In addition, this training builds the capacity of company-internal OSH experts as well as staff in charge of operating equipment for which there are strict safety requirements in place or staff working with hazardous substances. In addition, DOLISA organizes training courses on implementing OSH programmes in enterprises and disseminates information on occupational accident and disease insurance to include both its functioning and employer responsibilities.

DOLISA at province level collects data from enterprises on accidents and injuries, including the number of fatalities, and forwards the data to MOLISA at the national level. The formal sector has to report OSH accidents and diseases to DOLISA, in line with the respective OSH Law requirements.[89] The DOLISA Safety, Employment and Training Section also collects information on OSH accidents and diseases from the informal sector, including at commune and district levels. Data is first collected by the People's Committees and then forwarded to DOLISA. Nevertheless, information on number and type of OSH accidents and diseases in the informal economy in agriculture, collected by national authorities, remains limited.[90]

A DOLISA unit at district level has just seven staff on average responsible for company inspections. In Lam Dong province, for instance, in each district about 60 companies can be inspected per year. In 12 districts, this amounts to 600 to 700 companies out of 10,000 companies in the whole Lam Dong province. However, there is no inspection priority for coffee processing companies as they are not considered high-risk workplaces. To increase the number of companies whose OSH conditions are being reviewed by national authorities, about 500 to 1,000 enterprises in Lam Dong province are requested to complete an annual, self-assessment survey that includes OSH relevant questions.

87 Directive - Reorganizing Inspection of Enterprises https://thuvienphapluat.vn/van-ban/EN/Doanh-nghiep/Directive-20-CT-TTg-2017-reorganizing-inspection-of-enterprises/384014/tieng-anh.aspx
88 Department of Labour, War Invalids and Social Affairs (DOLISA) - Danang Portal English https://danang.gov.vn/web/en/detail?id=26213&_c=18211540
89 See OSH Law (2015) chapter III.
90 OSH statistics, where available, are published by the MOLISA Safe Work Department on its website: https://antoanlaodong.gov.vn/thong_ke_du_lieu/getdata/so-lieu-thong-ke/index.html

The Viet Nam Health Environment Management Agency (VIHEMA) under the Ministry of Health focuses on the promotion of occupational health. Particularly, VIHEMA contributes to the development of laws and decrees concerned with workers' health and the creation of a healthy working environment. VIHEMA also operates the Centres for Disease Control and Prevention at province level, including units on occupational health, as well as district level public health divisions and in commune health stations. VIHEMA also trains health workers in enterprises to provide occupational health services.

VIHEMA's tasks include training of health workers in enterprises to provide occupational health services, assessment of closed space working environments, and monitoring of pre-employment and regular health check-ups of formally employed workers. As part of its working environment assessments, it identifies hazards, including the measurement of working environment parameters, such as temperature, humidity, and dust. Viet Nam has a set of national standards for the indoor working environment, including noise, dust, lighting, and a checklist for assessing the working environment of indoor workplaces. However, there is no guideline yet available for the assessment and monitoring of the working environment of outdoor workplaces, such as in agricultural sectors. Information and statistics on occupational health is particularly poor in agriculture. Even though commune health stations report the number of disease cases and injuries from all sectors, these data are not well aggregated and processed at the national level due to a lack of budget and limited availability of human resources.

The Viet Nam National Institute of Occupational Safety and Health (VN NIOSH) is an affiliate of the VGCL. Its services include OSH education[91] and training, occupational health checks, hazard and risk assessment and the monitoring of the working environment to include fumes and water as well as the manufacturing and trading of personal protective and pollutant treatment equipment, such as for wastewater and dust.[92]

Its overall focus lies on scientific analysis and research in relation to OSH to promote workers' safety and health and protect the environment. The results of its work serve the operations of state agencies in general and the VGCL management in particular.

The Bureau of Employer Activities (BEA) at VCCI HCMC promotes OSH among member and non-member companies through consultancy and training of managers and OSH experts. It also engages in the promotion of OSH policies and dialogue on the implementation of the OSH law. In ToT courses, the OSH enterprise experts learn, among other considerations, how to conduct OSH risk assessments and how to give OSH advice to employers and co-workers. Employers tend to be interested in such trainings as they see the benefits of investing in OSH improvements, reflected through productivity gains and increased motivation among their workforce. A training module on OSH and productivity improvement is also included in the ILO's SCORE training package,[93] which the BEA disseminated to companies for about 10 years. BEA's OSH promotion activities cover various industries, such as the furniture and electronics sector. Agriculture is still a relatively new focus for the BEA, which includes rice, aquaculture in the Mekong Delta, cashew nuts and, most recently, coffee.

The National OSH Council, established by the Prime Minister, is a tripartite plus advisory body which assists the Government in formulating, amending or supplementing OSH policies and legislations. Its members include representatives from the government (MOLISA, MoH), workers (VGCL), employer organizations (VCCI), the Viet Nam Farmers' Union, OSH experts and scientists. Provincial OSH Councils, established by the People's Commitee, consist of the provincial branches of MOLISA and MoH, the Confederation of Labour, enterprises, and other relevant organizations, and OSH experts from the respective locality. The OSH Councils' objectives are to promote equal and safe working conditions and improve the effectiveness of the OSH policies and legislation at both national and provincial levels. (See OSH Law 2015, Art. 88).

91 In 2012, VN NIOSH developed the "Protecting health and safety of workers in agriculture, livestock farming, horticulture and forestry" Guidebook, with the support of the EU Programme for Employment and Social Solidarity (PROGRESS). This non-binding guide provides information and examples of good practice in connection with the implementation of health and safety directives and practical examples of OSH hazards and risks during all stages of farming, horticulture and forestry work. See: https://osha.europa.eu/en/publications/protecting-health-and-safety-workers-agriculture-livestock-farming-horticulture-and.

92 VN NIOSH – Certificate for OSH Training No.45/2014/GCN http://vnniosh.vn/english/Services_Education

93 The training package, developed under the Sustaining Competitive and Responsible Enterprises (SCORE) programme of the ILO aims to improve working conditions and productivity in SMEs. See: https://www.ilo.org/empent/Projects/score/lang--en/index.htm.

4.4 Public and private OSH support and service functions

4.4.1 Public services

Awareness raising

In Viet Nam, May is designated as the annual OSH month. During May a variety of events and activities on workers' safety and health promotion take place through media, films and workshops. The target group of that campaign is extended to temporary and informal economy workers. During this annual OSH month, social partners also organize promotional activities and encourage their members to participate in activities organized by MOLISA and the provincial DOLISAs. VCCI HCMC selects a different OSH topic or sector every year, which is then featured during the May events.

Training

OSH training is provided by the MOLISA Safe Work Department and VN NIOSH. Both agencies provide OSH training to employers, workers and OSH practitioners, including training for OSH staff to become certified trainers. A common training topic is hazard identification and risk assessment per type of industry, which is often delivered in the company. At provincial level, training is provided by the DOLISAs. Other institutions that offer training on OSH include the National Institute of Occupational and Environmental Health (NIOEH) (under MoH), the HCMC Science of Occupational Safety and Health Institute (SOSHI, under MOLISA), and the Centre for Occupational Health and the Environment under the Ministry of Trade (MoIT).[94] VN NIOSH, NIOEH and SOSHI also conduct research activities.

Farmers, farm workers and workers in coffee processing units can access OSH training through the national agricultural extension service, which has included a session on the safe use of agro-chemicals in its training programme for coffee cultivators. An overall comprehensive OSH module within the NAEC training programme, at the time of conducting this research, was still missing.

4.4.2 Private services

Training

According to the OSH law, high-risk enterprises need to be certified on OSH management and annually deliver OSH training to their workers.[95] Prior to 2019, factory workers had to be trained on OSH by external service providers according to a MOLISA regulation. Now, training can be conducted by certified in-house OSH experts.

VCCI HCMC, in cooperation with MOLISA, organizes ToTs for OSH managers (OSH training group 1) and OSH Officers (OSH training group 2) in companies. VCCI contracts the Safe Work Department of MOLISA and the Viet Nam National Center for Occupational Safety and Health (VN NIOSH) to conduct training and certify qualified trainees.

As part of their supply chain management, large public and private coffee processors contract OSH training companies to provide ToT to company staff, who then train collectors and farmers in their supply chain. Another example is VCA who is working with external training providers to train cooperative members on OSH in various sectors, including agriculture.

94 For more information see VN NIOSH: http://vnniosh.vn/english/; VIHEMA: http://nioeh.org.vn/; SOSHI: http://www.soshi.vn/gioi-thieu.html; CWEH: http://trungtamytemtldct.com/
95 Circular No. 07/2016/TT-BLDTBXH

Certification schemes

Since the late 1990s, the coffee industry has applied sustainable production techniques, linked to certification schemes. Certified coffee supports sustainability efforts, including farming in a clean, unpolluted environment, providing production conditions that strengthen economic viability, and promoting respect for human rights, decent employment conditions and OSH considerations.

Vietnamese coffee farmers are applying improved agricultural practices to obtain national and international certifications, such as 4C, VietGAP (Vietnamese Good Agricultural Practices), and Rainforest Alliance (RFA). The 4C programme is currently the most widely promoted and applied sustainability scheme in the Viet Nam coffee supply chain.[96]

As shown in Table 5, 4C is the broadest certification programme available, apart from Starbucks' C.A.F.E., and emphasizes social criteria and OSH as critical components of the scheme. The recently merged RFA and UTZ as well as Fairtrade and Enveritas also cover social criteria, including OSH. Sustainability programmes are also applied on state-owned farms, characterized by high yields, high quality beans and professional farming techniques.

4C and RFA certification require investment and adjustments by farmers, collectors and processors. Most national and international coffee buyers tend to support smallholder farmers and collectors, who belong to their supplier network to meet certification standard criteria, through training and farm advisory services.

Table 5: Criteria of coffee certification programmes

Certification Scheme	Environmental Criteria	Social criteria	OSH (in social criteria)	Economic Criteria	Quality Standards
Organic	✓				
Fairtrade	✓	✓✓	✓✓	✓	
Rainforest Alliance	✓✓	✓	✓	✓	
Bird-friendly	✓✓				
Starbucks C.A.F.E	✓✓	✓	✓	✓	✓
4C	✓✓	✓✓	✓	✓	✓
Enveritas[97]	✓✓	✓✓	✓	✓	
	✓ Moderate Criterion			✓✓	

Source: Lentijo and Hostetler (2011) updated in 2021 by the research team

96 In Lam Dong province, 75,000 HA of coffee is under certification, of which 53,000 HA (or 215,000 tons) are under 4C. The rest is under RFA certification (21,500 HA/87,000 tons) and C.A.F.E. (700HA /1,700 tons).
97 Enveritas 2021b

Depending on demand and overall price development trends, certified coffee can be sold at a higher price than conventional, fair average coffee. Besides, certified farmers perform higher levels of improved production practices, which can have a positive impact on overall, sector-wide coffee production and quality. However, the high volatility of global coffee prices and consumer markets' still limited absorption capacity of certified coffee, can discourage farmers, especially smallholders, to adopt certification schemes. The higher-productivity argument through, for example, better irrigation and fertilizer-use practices that farmers may adopt under certification schemes does not necessarily convince farmers, since productivity in coffee is already at its ceiling. There are other benefits of certification, though, that farmers may want to consider, such as reduced production costs (through, for example, the more efficient use of inputs), improved access to markets, or improved workplace safety and health.

The 4C audit, where it relates to workplace safety and health, focuses on coffee producers and service providers, including wet and dry mills, local traders and warehouses. Checkpoints are organized under seven provision criteria as follows:

1. Adequate housing for permanent and temporary workers, if needed;
2. Sanitation facilities and equipment, such as food storage areas, designated rest areas, protection during rainfall, toilets, handwashing facilities;
3. Potable water;
4. Safety and health programme, including risk assessment, safety and health training, chemical safety procedures, warning signs, accident recording, provision of medical treatment, risk control measures. If nursing, access to nursing rooms/specific nursing places and adequate breaks during working hours;
5. PPE and Personal Protective Clothing (PPC) in line with legal requirements, including training on PPE use, PPE maintenance and cleaning, facilities to deal with accidental contamination;
6. Impaired workers not involved in hazardous work;
7. Food security, including access to healthy, quality, and affordable diet; diversification of farming and/or commercial activities to expand sources of income and/or improve food security.

A number of checkpoints though do not apply to smallholder farmers.[98] For instance, most requirements under checkpoint 4, are more relevant for larger producing entities in the formal economy and are more demanding to comply with overall.[99]

98 4C defines "smallholder" as a Business Partner producer whose workforce consists primarily of family and/or household labour or workforce exchange with other members of the community and whose coffee farm is usually not larger than 5 HA (see: 4C Code of Conduct, version 4.0, July 2020).
99 This includes checkpoints 1,2, 4 (except for the need to conduct a risk assessment and implement risk control measures), 6 and 7 (healthy diet). The second requirement under checkpoint 7 (The BP Producer diversifies his farming and/or commercial activities in order to expand sources of income and/or improve food security) applies only to smallholders.

4.5 Compensation for occupational accidents and diseases through employment insurance schemes

4.5.1 Social insurance and health insurance coverage in Viet Nam

The Social Insurance law requires workers with formal employment arrangements, and with a contract of more than one month, to be enrolled in the compulsory Social Insurance (SI) system. Participation is voluntary for all workers with other employment arrangements, differing from the above, including farmers and seasonal workers.

The compulsory scheme includes benefits for retirement, survivors, sickness, maternity, employment injuries and unemployment[100]. Workers who join the voluntary scheme have access only to benefits for retirement and survivorship.

By the end of 2020, the number of people participating in SI accounted for 32.6 per cent of the labour force at working age, according to Viet Nam's Social Security statistics. Only 1.1 million people, or 2 per cent of the labour force at working age, voluntarily participated. There are no available statistics on the number of people participating in SI in the coffee sector. However, it is expected that voluntary SI participation remains relatively low in the sector. During the Lam Dong province fieldwork, none of the coffee farmers and seasonal workers the researchers spoke to were registered SI under voluntary membership.

The difference in the scope of benefits and the conditions for retirement pension entitlement, which requires up to 20 years of participation, makes the voluntary SI less valued by farmers and non-contract workers.

A 2017 survey among informal workers in Hanoi and Nghe An, conducted by the Institute of Labor Sciences and Social Affairs (ILSSA) in collaboration with the International Labour Organization (ILO),[101] revealed that 56.4 per cent of respondents preferred not to participate in voluntary SI. Likewise, interviewed farmers and seasonal workers in Lam Dong indicated that they would not participate in voluntary insurance schemes because they have low income and do not think there is a need for it.

The Vietnam Health Insurance Law aims to achieve universal coverage. It applies to all citizens and residents, and as such, informal workers in agriculture are legally covered by health insurance (HI), which provides for a comprehensive set of benefits, including medical examination, treatment for sickness and injury, rehabilitation for non-work-related injuries, and periodic antenatal care and delivery. The rate of participation in HI is, with 91 per cent of Viet Nam's population enrolled, close to the absolute level. The coverage gap is largely attributed to enrolment deficits by the informal economy. HI does not provide any income support to workers who have lost, either partially or permanently, their capacity to work due to an occupational accident or from occupational diseases.

100 See Viet Nam Social Insurance Law (2014), https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/99775/126463/F-1921723198/VNM99775%20Eng.pdf
101 Workshop: "Employment – related issues and policy approach for informal employment in Vietnam" October 6, 2017, reported by The Nhan Dan online Newspaper at https://nhandan.com.vn/bhxh-va-cuoc-song/tao-dieu-kien-cho-lao-dong-phi-chinh-thuc-tham-gia-bao-hiem-xa-hoi-306600/

Almost all interviewees in Lam Dong, except seasonal workers from neighbouring provinces, shared that they are participating in HI. The interviewees said that health insurance helps relieve their financial burden from expensive medical examination and treatment costs, especially for severe diseases and long-term treatment. According to the interviewees, the health insurance premium average is about Vietnamese Dong 700,000 per person per year,[102] and it is easy to purchase HI through cooperatives or commune people's committees.

Focus group discussions during the Lam Dong field trip revealed that internal migrants, including seasonal coffee farm workers from neighbouring provinces (Gia Lai, Khanh Hoa), do not participate in any insurance schemes. For these workers, in case of occupational accidents and injuries, medical costs and compensation for non-working days such as paid sick leave, are covered by their employers at their goodwill. Usually, such a commitment is not made in writing nor is it discussed during the recruitment process due to both parties' lack of awareness of their rights and obligations in terms of compensation payments.

A few interviewed coffee farmers in Lam Dong province indicated that, in addition to being covered by HI, they also purchased life insurance, including health care insurance and injury insurance. According to the Insurance Administration and Supervision Department (ISA) statistics in 2020, the proportion of Vietnamese nationals with life insurance is below 10 per cent, which is still quite low compared to many other countries in the region and worldwide.

4.5.2 Benefits in case of illness, accidents and injuries

With SI and HI cards in hand, contract workers who suffer from an occupational illness or who were injured in a workplace accident and are unable to work, are eligible for health care and treatment services from HI and paid sick leave of 30 to 70 days, and up to a maximum of 180 days of leave, per year from SI. For those covered by SI, employers usually assist their employees to carry out administrative procedures with the Social Security Office to receive SI benefits. The maximum benefit rate equals 75 per cent of the last monthly salary on which the social insurance contribution was based before having to take sick leave. Employees who have suffered a loss of their work capacity of at least 5 per cent up and up to 30 per cent due to an occupational accident or disease receive a lump-sum benefit.

> A coffee farmer in Bao Lam district of Lam Dong province shared that, a year ago, her husband had broken his leg while driving an agrimotor. He was on bed rest for seven days and it took about seven months for him to fully recover. The cost of treatment was about 17 million Viet Nam Dong. However, the family did not use the HI benefits to cover the treatment costs because the process of claiming these benefits was complicated and time-consuming. In addition, the HI compensation pay would have only covered some of the actual costs the farmer incurred.

Employees who have lost at least 31 per cent of their work capacity will receive a monthly allowance, the duration of payment depending on the results of the medical assessment of the Medical Assessment Council.[103] Depending on specific cases and a company's policy, employees can receive additional compensation from their employer.

102 According to the Law on Health insurance, the HI premium is 4.5 per cent of the basic salary as set by the government, and the premium decreases gradually from the second member of the household onwards. According to the Decree 38/2019/ND-CP, the basic salary from 1 July 2019 is Vietnamese Dong 1,490,000 per month, and the basic salary is subject to change every year.
103 See OSH Law (2015), Section 3 "Insurance Compensation for Occupational Accidents and Diseases". The exact amount of lump-sum and monthly allowance payments is calculated by the Viet Nam Social Security Office, based on various eligibility criteria (such as years of contribution to the Insurance Fund for Occupational Accidents and Diseases) and information of the Medical Assessment Council.

The HI fund will cover 80, 95 or 100 per cent of different types of medical cost categories, depending on a patient's membership category.[104] Nguyen and Mai (2015)[105] mention that only one-third of people with HI regularly use these benefits. The primary reason for not using HI is that people often do not bring their HI card with them when going to a medical examination or for treatment. In addition, overcrowded healthcare facilities are another reason people choose private health services instead of the public services that are accessible through HI. A lack of trust in the quality of medical services provided under HI and the perception that the overall health care services provided to national health insurance card holders are lacking, creates additional barriers to using HI. Nevertheless, Lam Dong interviews showed that older farmers tend to use HI more often than others for periodic health check-ups.

According to Nguyen and Mai (2015), national and provincial hospitals are the preferred options for more than 60 per cent of patients seeking medical services, followed by private clinics (8.6 per cent), district hospitals (5.1 per cent), private hospitals (2.9 per cent) and commune health stations (1.7 per cent).

These statistics are very similar to the interview results gathered from coffee farmers in Lam Dong, with usage being explained by the type, quality and costs of services. For instance, district health centres mainly offer medical and preventive services, private hospitals are quite expensive and commune health stations offer only primary health care. In addition, a significant number of farmers purchase drugs from a pharmacist without needing a doctor’s prescription when experiencing health problems.

104 The expense covered by the health insurance fund include: (i) Costs of medical examination and treatment, function rehabilitation, regular pregnancy check-ups and birth giving, (ii) Costs of medical examination for screening and early diagnosis of some diseases, (iii) Costs of transferal from district hospitals to higher-level hospitals.
105 Nguyen and Mai, 2015, “Thực trạng sử dụng thẻ bảo hiểm y tế của người dân”, Journal of Sociology 2 (130), pp 76 – 85.

5

OSH vulnerability profiles in production and processing stages of coffee in Viet Nam



For the purpose of the methodology used for this study, vulnerability is described as the characteristics of specific groups of workers by putting exposure to occupational hazards and risks in relation to factors that make workers more likely to be affected by such hazards and risks, with low capacity to cope with the consequences of exposure. The dimensions that define vulnerability are:

- Risk Exposure: it identifies occupational hazards and risks for specific groups of workers by activity.
- Sensitivity: it specifies characteristics of the employment situation of workers[106] which are linked to their risk exposure and influence the nature and frequency of risks.
- Coping capacity: it relates to the strategy and resources that workers have at their disposal to face the consequences of being exposed to occupational hazards. In particular, it is a matter of assessing access to health care services and compensation in the event of occupational injury, illness or death.

In the following, a distinction is made between farmworkers, carrying out multiple tasks in coffee cultivation, and workers involved in coffee processing. Within each group another distinction is made between contract workers and seasonal workers without contracts. The sex and age of the workers are also considered. The description of the vulnerability profiles is based on interviews with farmworkers, workers in processing and managers, workplace observations and literature study.

106 Examples of such characteristics are access to a workplace risk management system; access to personal, collective and social protections that help prevent occupational risks; status of employment if it is linked to differential access to prevention, promotion and protection against occupational risks (Occupational Safety and Health in Global Value Chains Starterkit, ILO 2018, pp.29-40).

5.1 Profile of farmworkers

Farmworkers are involved in land preparation, planting and watering coffee trees, weeding the area around the trees, preventing and managing plant pests and diseases, harvesting coffee cherries, packing, and loading the harvest on trucks. They are also engaged in general farm maintenance. From the discussions with the interviewed coffee farmers (March 2021), digging holes, hoeing beds, spraying pesticides, pruning tree branches, and transporting input materials and coffee cherries are considered to be work that men perform. Women are often tasked with physically less demanding jobs such as cleaning, harvesting and drying coffee. This division of tasks perceived as gender-appropriate, means that means that there are differing occupational health and safety risks by gender.

Depending on the activities they conduct, coffee farmworkers are exposed to various hazards.

Coffee farming exposes farmers to **ergonomic hazards** resulting from sloping coffee gardens, carrying heavy loads over long distances, remaining in awkward body postures for an extended time or doing repetitive moves, such as picking the coffee cherries. This can lead to backache and other musculoskeletal diseases.

As shared by farmworkers in a focus group discussion, most coffee farmers had experienced at least one of the following accidents or health issues when growing coffee:

- Coffee tree branches injuring the eyes, scraping arms and /or legs
- Weed cutting machines slashing legs
- Falling from coffee trees
- Motorbike or agrimotors turning over when carrying a large number of coffee bags
- Back and joint pain from carrying heavy loads for an extended time



Cutting tools used for pruning coffee trees; Source: ILO Vision Zero Fund project, 2021

Coffee farmworkers are also exposed to **physical hazards**, particularly sunlight, heat and dust. During workplace observations on farms, the researchers found that farmworkers do not always take adequate measures to protect themselves, such as taking breaks and drinking sufficient water to prevent exhaustion and dehydration, wearing PPE, such as hats with neck protection and long sleeves, and using sunscreen.

The operation of machines presents another physical hazard, whereby, for example, unsafe machines, such as those with unguarded moving parts, can lead to serious accidents through contact or entanglement.

Farmworkers can also face **biological hazards**. Being exposed to pest and animal manure or having contact with animals in the coffee gardens can result in infections or bites from snakes, insects or other animals. As observed during workplace observation, with the exception of masks, farm workers did not wear proper PPE (e.g., solid shoes, gloves) to protect themselves against biological hazards.

The SARS-CoV-2-virus, which causes COVID-19, represents a new biological hazard that coffee farm workers can be exposed to at their workplace.

In March 2021, when the FGD for this assessment were held in Lam Dong province, interviewed farmers - given the low infection rate at this time - did not mention COVID-19 infection as an OSH concern. On the farms which the research team visited, some workers were wearing masks, and hand sanitizer was provided, but more comprehensive COVID-19 prevention measures, such as having a COVID-19 response team and plan, providing training, had not been put in place. With decreasing COVID-19 infection rates nation-wide since April 2022, COVID 19 is seen as less of a workplace threat.

The most frequently mentioned occupational risk was noted as exposure to hazardous **chemicals** through the application, storage and disposal of agro-chemicals such as pesticides and herbicides. Interviewees noted that chemicals are used by "applying traditional methods" meaning, the unprotected and partly excessive use of chemicals.

Moreover, empty pesticide containers are not appropriately disposed of, but are indiscriminately thrown into coffee farmland. Also, findings from workplace observations indicated that chemicals are not properly stored. The research team saw pesticides being stored in unlocked cabinets, amidst kitchen and other household items and without specific labelling.



Agro-chemical containers on coffee field; Source: ILO Vision Zero Fund project, 2021



Application of agro-chemicals on a coffee farm; Source: ILO Vision Zero Fund project, 2021

As the wage earned partially depends on the volume of coffee cherries picked, both seasonal and permanent workers, work for long hours during harvest season, sometimes exceeding 10 hours per day, as mentioned by farmers during interviews. This can lead to **physical exhaustion**, even more so if needed breaks and rest times are ignored.

Based on results of a coffee smallholder survey, conducted by Enveritas (2021a) in 2020-2021, the majority of coffee farms in the Central Highlands (57 per cent) hire workers, of which only 7 per cent have access to PPE and have been trained on how to use PPE safely. Almost all farms who hire external workers (97 per cent) do so for the purpose of harvesting coffee. Other main tasks that hired workers carry out include spraying, fertilizer application and mechanical weeding. As per survey findings, the likelihood of suffering an OSH accident, injury or disease is assessed as high for spraying, harvesting, and fertilizer application. It is assessed as medium for pruning, and as low for mechanical weeding, manual weeding and post-harvest activities.[107]

As informal economy workers, seasonal labourers are usually not covered by the social security scheme which leaves them unprotected against the consequences of occupational accidents and diseases, a situation which may cause psychosocial stress.

Welfare facilities found on smallholder farms tend to be basic. In most cases, toilets, showers and kitchens are available, although there are no separate, single-gendered toilets. The research team further noted that there is a lack of designated rest areas, first aid kits and access to drinking water in the coffee fields.

Outside the farms, while transporting the coffee to the processors or collector points, smallholder farmers and farm workers are exposed to road safety risks, caused by unsafe vehicles, unsafe roads, unsafe loading, lack of driver protection, such as helmets for motorcycle drivers, and unsafe driving practice. All these deficits can lead to road accidents.

On the farms that the research team visited, there was a general absence of OSH management systems. None of the farms had an OSH policy or an OSH risk prevention plan, and none had conducted hazard identification and risk assessments. In most cases, safety and health information was not visually displayed.

107 The findings mentioned in this paragraph are taken from a smallholder survey conducted by Enveritas (2021a). (https://www.enveritas.org/) during the coffee harvest season 2020-2021. In total, 1,947 smallholder farmers from the Central Highlands, Viet Nam, were interviewed.



Coffee farm worker picking cherries; Source: ILO Vision Zero Fund project, 2021

The level of sensitivity of a worker towards exposure to occupational risks depends on individual and work-related risk factors. Factors that influence a worker's sensitivity include, among others, age, health conditions, gender and awareness about OSH hazards, risks, and risk control measures. Typically, pregnant workers, workers who are nursing, young and older workers[108] and people with medical preconditions are particularly sensitive to workplace risk exposure when there are no risk control measures in place.

For example, pregnant and nursing workers need to be protected against chemical agents in particular as they can affect the development of the embryo or the health of the child due to harmful substances carried in the mother's breastmilk.

Factors that can put a pregnancy at risk also include biological agents, work-related impact and movements (e.g., carrying of heavy loads, vibration, awkward postures, static activities [prolonged sitting or standing]), stressful work situations, lack of workplace hygiene and welfare facilities (e.g., lack of access to safe drinking water, lack of access to toilets)[109].

Young workers are at particular risk as they are still developing, both physically and mentally, and this makes them more susceptible to harm, for instance when carrying out physically strenuous work or handling hazardous agents. Young workers have less work experience than older workers and had less opportunities to participate in OSH trainings.

108 The ILO defines young workers as those within the age group 15 – 24 years whereas the definitions by the Vietnam Labour Code 2019 are as follows: minor workers are those younger than 18 years of age, incl. 1) those falling within the age group 15 to < 18 years; they are not allowed to do any work that is harmful to the development of their physical and mental health, and their personality (see for more detail Article 147 of the Viet Nam Labour Code); 2) those aged 13 to < 15 years old are allowed to do light work as defined by MOLISA; 3) those < 13 years of age are allowed to work in accordance with clause 3, article 145 of the Labour Code ("Employers must not hire people under 13 to do works other than sports and arts, provided they do not affect the development of their physical health, mental health and personality, and the employment is accepted by the provincial labor authority".) As for older workers, the Viet Nam Labour Code only includes a definition for "elderly employees" which are those who continue to work beyond the official retirement age (55+ for women, 60+ for men). http://english.molisa.gov.vn/Pages/Document/Detail.aspx?Id=39373)

109 Healthy Beginnings: Guidance on Safe Maternity at Work, ILO 2004. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_travail_pub_66.pdf

Consequently, they lack knowledge on OSH and are less aware of OSH risks which increases their risk of getting injured at work. Young workers also lack bargaining power in relation to OSH[110].

As for older workers, the risk to have a work-related accident may increase due to health/cognition-related factors[111].

For workers with certain medical pre-conditions OSH risk protection is of particular importance to prevent that work-related injuries and diseases affect their health further and may cause a worsening of their condition.

Another sensitive group are workers without formal contracts, including internal migrants. They do not have access to occupational accident and disease insurance should they need coverage and also lack access to OSH training and OSH risk protection.

Risk awareness and readiness to apply protective and preventive measures can be increased through OSH training.

However, during Focus Group Discussions, farm workers reported that they had not received such training. As discussed in section 3.2, it is more likely that permanent, formally employed farmworkers receive OSH training than seasonal workers. In addition, seasonal workers usually do not receive medical check-ups which means that health outcomes due to exposure to occupational hazards remain undetected. While general workplace observations revealed that in coffee farming, most workers are not yet fully aware of the OSH hazards and risks they face, information shared by workers in the FGD indicated that risks caused by the use of agro-chemicals are widely understood. Men are much more likely to be the ones applying agro-chemicals as part of their work responsibilities.

110 Improving the safety and health of young workers. ILO, 2018. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/publication/wcms_625223.pdf
111 XIX World Congress on Safety and Health at Work, Istanbul, Turkey, 11-15 September 2011: ILO Introductory Report: Global Trends and Challenges on Occupational Safety and Health. ILO, 2011. https://www.ilo.org/wcmsp5/groups/public/@ed_protect/@protrav/@safework/documents/publication/wcms_162662.pdf

5.2 Profile of processing workers



Coffee farm worker checking the quality of dried coffee beans in a coffee processing facility; Source: ILO Vision Zero Fund project, 2021

Workers engaged in the primary processing of coffee, either on farms, in processing units of cooperatives or in coffee mills, carry out various tasks. They de-pulp the cherries from the beans, ferment the de-pulped beans, wash the beans after fermentation, dry the beans within the cherries (dry processing) or after washing (wet processing), hull the dried beans to remove the parchment skin, polish, grade, sort and bag the green beans before loading the bags on trucks for transportation. Most of these activities are performed with the help of machines of differing technological capacity, including de-pulping, washing, drying, hulling, polishing, grading, sorting, and bagging.

As observed by the research team, men working in processing units are more often exposed to **ergonomic hazards** by activities like loading and unloading 60kg coffee sacks multiple times per day. Other work responsibilities, involving operating machines or manually conducting specific processing procedures, can result in repetitive movement and working in awkward posture continuously, for example, raking and turning the beans during the drying process.



Workers carrying heavy coffee bags in a coffee processing facility; Source: ILO Vision Zero Fund project, 2021

Main **physical hazards** in a processing facility include electrical wiring which, if unsafe, can cause electrocution and fire, or the use of machinery, including forklifts and unguarded conveyor belts. In the observed workplaces, guards were not attached to the machines' moving parts, which poses an injury risk for workers. In addition, workers operating the machines wore sandals, not safety shoes.

Workers are also exposed to noise and heat generated by the machines in closed room workstations. None of the workers the research team observed operating machines applied noise protection measures.[112]



Uncovered moving machine parts of a conveyer belt; Source: ILO Vision Zero Fund project, 2021

112 While the research team did not use any noise measurement instruments, the level of noise level at the closed room workstations must have been substantial; team members had difficulties hearing what their colleagues were saying although standing next to each other.

Processing green beans, including drying, hulling, grading and sorting produces high amounts of dust, especially in closed, partly or poorly ventilated rooms. Dust is a significant physical hazard. Workplace observations in processing units showed that not all workers in areas with high dust levels were wearing masks to protect themselves from breathing in dust particles. Also, the research team did not see any exhaust ventilation system to reduce indoor dust levels. Exposure to dust in coffee mills may lead to the development of respiratory illnesses and allergies.

Wet processing, fermentation and washing of coffee beans produces wastewater and solid wastes/residues. Wastewater constitutes **chemical hazards** to which workers and the environment can be exposed, with negative impact on human health, groundwater quality, aquatic eco-systems, and soil. The wastewater contains toxic chemicals like tannins, phenolic and alkaloids.[113]

In the processing factories visited, the research team noticed that easy-to-understand warning signs were available, such as those alerting workers about electrical safety risks. However, the factories neither kept lists of identified OSH hazards nor did they have emergency procedures available (e.g., in case of a workplace accident, a fire, or a natural disaster). Generally, OSH management systems, or key elements of one, were not in place.

Also, as observed by the research team, the majority of workers did not wear adequate PPE to protect themselves against workplace safety risks. The PPE most commonly used were face masks which were often simple surgical masks or masks made out of cloth.



Containers used for the washing of coffee beans/wet processing; Source: ILO Vision Zero Fund project, 2021

113 Woldesenbet, A.G. & Woldeyes, Belay & Chandravanshi, B. (2014). "Characteristics of wet coffee processing waste and its environmental impact in Ethiopia." https://www.researchgate.net/publication/303174675_Characteristics_of_wet_coffee_processing_waste_and_its_environmental_impact_in_Ethiopia/link/58611ff208ae329d61fef98d/download



Work at height during coffee processing without fall protection; Source: ILO Vision Zero Fund project, 2021

As with farm workers, the level of sensitivity of coffee processing workers towards exposure to occupational risks depends on individual and work-related risk factors. These risk factors include the worker's age, sex, health conditions, work experience and awareness about OSH hazards, risks, and risk control measures.

Based on interview findings, permanent workers receive OSH training or at least an OSH briefing by peer workers; additionally, they have regular health checks as per OSH Law requirements. If transport companies provide workers for loading and unloading trucks, health checks for these workers are being done at commune health stations.

Interviews confirmed that gender roles impact work performed, and women workers usually do lighter, less strenuous activities during processing, such as the sorting of beans, which reduces their exposure to certain hazards (e.g., ergonomic hazards through the carrying of heavy bags). Workers' coping capacity with the consequences of OSH risks is largely influenced by their contractual and insurance status. Temporary workers in coffee processing will usually not have access to social security benefits.

An exception is when temporary workers are hired through service companies, which have enrolled them in the Social Insurance scheme, or in very rare cases, where they have enrolled in voluntary social insurance. Interviewed employers claim to pay for the treatment of injuries and diseases of non-insured workers. Whether this applies to each case, and to what extent medical costs are being covered, needs further validation.



Work in a Green House can expose workers to high temperatures. Source: ILO Vision Zero Fund project, 2021

6

Improving OSH in the coffee value chain in Viet Nam: Drivers and constraints



The methodology for the assessment of drivers and constraints is based on the analysis of market elements and the institutional environment. It includes:

- Commercial practices, business models of the different supply chain actors and their interactions
- The OSH legal framework and the public and private entities responsible for OSH
- Actors that may assume a supporting role to promote OSH awareness and capacities

6.1 Constraints

The constraints for OSH improvement in the coffee sector are factors that are currently preventing systemic and sustainable OSH improvements, including improving OSH conditions for the most vulnerable workers. These factors relate to the markets for input supply and final products, the provision of OSH support services, notably training, as well as availability of OSH data.

Low OSH awareness among coffee value chain actors

A key insight from this research is that coffee value chain actors in Viet Nam have some general knowledge about OSH and OSH support services. Overall, however, these topics are not yet prioritized. Coffee farmers were found to be somewhat aware of OSH hazards and the risks they are exposed to when performing their daily activities, but they lack a full understanding of the health outcomes, which, for some risks, can be serious. For example, as previously mentioned, workers applying agro-chemicals tend not to take necessary protective measures. In addition, coffee sustainability initiatives, while aiming to improve socio-economic conditions for farmers, and which go hand-in-hand with sustainable environmental-friendly production techniques, are not clearly emphasizing safe and healthy working conditions and work practices. Thus far, national authorities tasked with promoting OSH overall, have paid less attention to agricultural workplaces as they are not regarded as high-risk.

Limited availability and use of PPE

Lack of awareness on and prioritization of OSH in the coffee value chain impacts the availability and demand for OSH-related protective equipment. The interviewed farmers shared that adequate personal protective equipment for tasks performed in agriculture, including for coffee farming, is not readily available. For example, many typical agricultural supply shops do not offer protective equipment, such as respirators for applying pesticides and herbicides. During fieldwork, the researchers learned that in some cases, given the non-availability of PPE in shops, farmers ordered such equipment online.

However, given digital infrastructure limitations in rural areas, not all farmers are able to order online or are in a position to afford the equipment. At the same time, many farmers and farmworkers who have PPE find wearing them uncomfortable in the hot and humid climate and opt not to use them.

Limited coverage and contents of OSH training services

Although different public and private sector agencies offer OSH training courses, their coverage in terms of farmers reached and their depth in terms of topics discussed is limited. Most farmers, collectors and small- or medium-sized processors do not have access to dedicated training sessions on OSH, with a focus on OSH hazards and risks specific for the coffee sector. Due to low OSH awareness in the coffee supply chain, OSH training is not offered yet as a topic in its own right but as an add-on to technical training on coffee cultivation. Also, in most cases, such OSH training sessions focus on the correct and safe application of agro-chemicals only. Based on the insights gained during the OSH assessment interviews, the majority of seasonal workers on farms and in processing units have never attended an OSH training course.

Lack of statistical data

Research results show that there is an overall lack of OSH data for the agricultural sector, including the number of occupational accidents, injuries and diseases in coffee cultivation, collection, and processing. Information on access to medical services and compensation in the event of an occupational injury or disease is also lacking. So far, national authorities have prioritized OSH data collection in the formal economy and in high-risk sectors. Greater evidence collection and data analysis supports the design of policies and strategies for OSH improvement. As such, the consistent and comprehensive collection, publication and dissemination of OSH statistics are a necessary precondition for improving and monitoring the OSH within the coffee value chain.

6.2 Drivers

6.2.1 Actual drivers

Services embedded in the coffee value chain

There are training and other support measures offered and implemented by different supply chain actors. Upstream the value chain, pesticide and fertilizer companies occasionally give training to farmers on the application of agro-chemicals, for instance, via the Farmers' Union. Downstream the value chain, some of the larger multi-national buyers provide regular training courses to farmers on sustainable coffee cultivation, e.g., on fertilizer usage, pruning, watering and harvesting and the safe handling and disposal of agro-chemicals. Usually, their training to farmers is covered by the company, including farmers' travel costs. Additionally, coffee cooperatives, operating within the legal framework for cooperatives,[114] purchase and provide seeds and fertilizers to the farmers that are their associated members.

These embedded services could be extended by incorporating additional OSH elements to protect farmers' safety and health and promote productivity. For example, training on using agro-chemicals, fertilizer, water usage, among other topics, could be accompanied by a comprehensive OSH training programme. Coffee cooperatives could facilitate access to specialized PPE for their members in combination with the creation of OSH awareness and the demand for adequate PPE by farmers. The purchase of PPE should be based on a comprehensive OSH risk assessment. Cooperatives could also introduce national or global coffee certification schemes to their members. Although the current prices paid for certified coffee may not motivate farmers to join these schemes, it would be useful for them to know the OSH certification requirements and implement OSH improvements accordingly. Knowing the requirements allows the farmers to be well prepared should they opt to join these schemes in the future.

Utilizing national OSH awareness raising initiatives

Another driver to promote OSH in agriculture, and the coffee supply chain in particular, are established, ongoing government initiatives. One such example is the annual OSH month celebrated each May. While these initiatives usually focus on the non-agricultural and non agro-processing sector, they could, in the future, be harnessed to promote OSH in agriculture as well.

OSH legal framework and programmes

Interviewees at the national and provincial level confirmed that the OSH Law (2015) and related regulations in Viet Nam are comprehensive and consistent with international standards. International agreements like EVFTA and notably the ILO Conventions Nos 155 and 187 complement the OSH legal framework. Also, the recent adoption of OSH, in June 2022, as a fundamental principle and right at work by the International Labour Conference[115] will require all ILO Member States, including Viet Nam, to practice a more stringent implementation of OSH legal requirements and to address enforcement gaps. This practice may lead to improved OSH compliance in Viet Nam's agricultural sector.

Another important, relevant OSH document relates to the program, *"Care and Improvement of Workers' Health and Prevention of Occupational Diseases in the period 2020 – 2030"* (Decision 659/QD-TTg. of May 2020), prepared by VIHEMA and signed by the Prime Minister.[116] The Decision calls for the effective prevention of occupational diseases in multiple sectors and occupations, including the agricultural sector. It promotes, among other considerations, access to health care for informal workers at commune health stations (see also chapter 4.1.1).

114 Cooperative Law of 2012: https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=94469&p_country=VNM&p_count=556; Cooperative By-Law of 2021: http://vca.org.vn/en/bye-law-of-vietnam-cooperative-alliance-a173.html
115 https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_848132/lang--en/index.htm
116 See Decision No.659/QD-TTg. of 20 May 2020 on "Approving the Programme on Care and Improvement of Workers' Health and Prevention of Occupational Diseases in the period 2020–2030".

One specific objective of the Decision aims to, by 2025, integrate health care services for workers without labour contracts into primary health care activities at the grassroots level. The program also focuses on women workers and workers without labour contracts in agriculture and aims to strengthen capacities to provide medical services (treatment, rehabilitation) for workers who have suffered an occupational injury or disease.

6.2.2 Potential drivers

Sustainability initiatives

The coffee sustainability initiatives by GCP and IDH implement programmes and services that could also promote OSH. For example, building OSH capacity could be included in IDH's service delivery model (SDM), which provides advisory services and trains farmers on sustainable coffee cultivation. Similarly, there is opportunity to promote, in cooperation with GCP, the implementation of OSH indicators included in the GCP Coffee Sustainability Reference Code (see chapter 3.4.3). Monitoring progress made through the implementation of OSH-related Reference Code requirements would generate much needed OSH data, especially at the farm and household level. Additionally, OSH training, with a focus on chemical safety, could be included in the GCP collective action initiative on the responsible use of agro-chemicals, currently under implementation. The possibility of a collective action initiative, dedicated to solely promoting OSH and led jointly by the project and GCP should also be explored.

In general, possible future OSH improvement measures by the project should consider linking OSH and productivity gains with sustainable, environmental-friendly and climate-smart farming practices, given their growing importance to sustain production and stabilize livelihoods.

National coffee sustainability training programmes

The Viet Nam Coffee Coordination Board (VCCB) is promoting the development and application of the National Sustainability Curricula for Robusta and Arabica coffee to standardize cultivation and processing practices that comply with sustainability requirements. The national sustainability curricula have been developed with the input of VCCB members as well as public and private companies. While they do not yet have a particular focus on OSH, the possibility to add a chapter on OSH hazards and risks for the different cultivation tasks and on how to control OSH risks should be explored.

Certification schemes

Although prices for certified coffee are currently perceived as being too low and some certification schemes as not being able to sell all their certified produced coffee as certified,[117] certification schemes, generally, can be regarded as a driver to promote OSH.

117 https://coffeebarometer.org/

7

Intervention areas for improving OSH in the coffee value chain in Viet Nam



Recommendations for interventions (see Table 6) are linked to the constraints and drivers identified in the previous chapter.

Each recommendation identifies the proposed interventions, relevant actors and suggested timeframe for action.

Table 6: Overview of recommended interventions

Topic	Proposed intervention	Proposed actors	Effective date
OSH awareness and OSH knowledge	Organize OSH campaigns (via social media, SMS, websites and online newsletters); Promote OSH in the coffee supply chain during the annual OSH month	MARD/DARD/NAEC: for coffee cultivation MOLISA/DOLISA, VCCI: for coffee processing; MOLISA, VCCI, VGCL: for campaigns during OSH month Global Coffee Platform Viet Nam (including support from its members)	Short-term
	Build trainer capacity on OSH (as per Work Improvement in Neighbourhood Development (WIND) methodology) with focus on coffee cultivation and coffee processing (small-scale)	ILO-VZF Training recipients: farmers, members of community organizations, agricultural extensionists; DARD, DOLISA, OSH practitioners from national and international companies, NGOs, multi-stakeholder initiatives	Short-term
	Build trainer capacity on OSH with focus on Small and Medium Enterprises (SME) in coffee processing (formal sector)	VCCI-HCMC External OSH experts	Short-term
	Deliver training on OSH for: coffee farmers, coffee processing workers and collectors (informal and formal)	ILO-VZF VCCI-HCMC MARD/NAEC VCA Private sector service providers	Short-term
	Integrate OSH into Farmer Coaching Visits (FCVs)	NAEC, GCP	Mid-term
	Integrate OSH into the National Sustainability Curricula for Robusta and Arabica cultivation	MARD	Mid-term
	Train agricultural input providers (selling agro-chemicals) on chemical safety	ILO-VZF External OSH expert	Short-term
	Form partnerships and alliances with multi-stakeholder coffee sustainability initiatives and private sector companies to promote the dissemination of OSH knowledge	ILO-VZF GCP Viet Nam IDH Private sector companies	Mid-term
	Adjust WIND training material to reflect specific OSH hazards and risks in the coffee supply chain (coffee cultivation and small-scale processing, mostly informal); Adjust OSH training material for SMEs in coffee processing (formal); Develop training material on chemical safety	ILO-VZF With input from VCCI-HCMC, DOLISA, MARD, GCP, the private sector	Short-term
	Train representatives from government agencies, employer and worker organizations on OSH in agriculture	ILO-VZF Training recipients: MOLISA/DOLISA, MARD/DARD, VCCI-HCMC, VGCL, VCA	Short-term
	Assist VCA to rollout OSH training to their members in the coffee sector	ILO-VZF	Mid-term

Topic	Proposed intervention	Proposed actors	Effective date
	Promote OSH in multi-stakeholder fora, such as the Global Coffee Platform (VN chapter), the VCCB, IDH	ILO-VZF GCP	Short-term
	Conduct training on COVID-19 prevention measures	MoH, Department of Disease Control	Short-term
PPE	Promote availability and accessibility of adequate and affordable PPE, including: • Promote PPE access through agricultural supply shops; • Promote access of PPE through the VCA supplier network	DARD Supply shops VCA supplier network in Lam Dong and Dak Lak	Mid-term
	Adjust design and material of specialized PPE (e.g., to protect workers against exposure to hazardous chemicals) to make it more comfortable for workers to wear and to increase the number of workers using adequate PPE; Consider developing / adjusting PPE that fits specific needs for women coffee workers	VN NIOSH VIHEMA (or another institution specialized on environmental health)	Mid-term
Certification	Disseminate knowledge on OSH requirements of certification schemes through existing farmer training programmes; should the price for certified coffee improve, producers would be well prepared to fulfill the scheme's OSH requirements and pass audits, and benefit from higher prices	VCA Public and private OSH training providers	Mid-term
Occupational accident and disease insurance / Occupational Health Services	Conduct research on coffee farmers' access to social protection and occupational health services; Develop recommendations to improve access	MOLISA Social Security Office	Mid-term
	Support the implementation of the Program No.659/QD-TT (Program on Care and Improvement of Workers' Health and Prevention of Occupational Diseases")	MoH	Mid-term
OSH data	Pilot the OSH accident and disease notification, reporting and recording tool as well as other relevant tools; Collect OSH data from smallholder farmers, cooperatives and private companies	MOLISA Safe Work Department	Mid-term
Integration of OSH training into existing programmes	Incorporate OSH training in the regular advisory and training programmes of the National Agricultural Extension Centers and the Viet Nam Cooperative Alliance	MARD / NAEC VCA VCCB	Mid-term
	Incorporate OSH training in the regular advisory and training programmes of sustainability initiatives by the private sector and NGOs (e.g., IDH, GCP)	Private companies (producers, service companies); IDH GCP	Mid-term
National OSH frameworks	Analyze OSH Law with respect to its suitability to protect farm workers (informal sector) against OSH risks	MOLISA Safe Work Department	Mid-term
	Strengthen the capacity of MOLISA Safe Work Dept. and Labour Inspectors on OSH in agriculture, with the aim to improve OSH training and OSH Law implementation in agriculture	MOLISA Safe Work Dept. DOLISAs in Lam Dong and Dak Lak	Mid-term
	Train DOLISAs on strategic labour compliance to improve compliance with the OSH Law by workplaces in agriculture	MOLISA DOLISAs	Mid-term

Expansion of OSH awareness and knowledge among coffee farmers, collectors and coffee processing workers

As this research identified an overall low level of OSH awareness and knowledge in the coffee supply chain, the design and implementation of OSH awareness raising measures from which all relevant stakeholders will benefit, constitutes a key intervention.

The Viet Nam OSH month, celebrated annually in the month of May, represents an excellent opportunity to promote OSH in agriculture, for instance through awareness raising campaigns. Under the leadership of MOLISA, event activities are often conducted in cooperation with VCCI and VGCL. Given its focus on OSH in the coffee supply chain, the project could provide technical and financial support to implement OSH awareness raising activities in the Central Highlands, organized by the provincial DOLISAs, and in partnership with other stakeholders.

Other events that could further raise awareness on the importance of OSH among coffee buyers and producers include:

- Conferences and workshops by national coffee sector stakeholders, e.g., convened by VCCB, NAEC, GCP or VICOFA;
- The Viet Nam National Coffee Day (10 December), e.g., by organizing side events to raise awareness on OSH, including specific OSH needs of women coffee farmers.

OSH knowledge can be built through the development of sector-specific training material. Specifically, material to train both smallholder farmers, predominantly engaged in coffee cultivation/ informal economy, and workers in processing who are mainly working in formal enterprise. Training materials included in the delivery of pilot trainings, such as training for agricultural input providers with a focus on chemical safety, is yet another opportunity to build OSH knowledge.

Training on OSH should highlight that improved OSH practices can also promote productivity, for example through improved workstation design and organization, safer transport routes, safer and user-friendly tools, or safer practices to handle heavy loads. Improvements in this regard can prevent work-related accidents and injuries and, at the same time, can help farmers performing their tasks more efficiently.[118]

Emphasizing the link between OSH and productivity gains during the training can support the adoption of good OSH practices by farmers and behaviour change.

Possible target groups to receive ToT training are national agricultural extension workers, members of the Viet Nam Farmers' Union, Women's Union, OSH practitioners in companies, freelance OSH trainers affiliated to employer and sector organizations, NGOs, Department of Agriculture and Rural Development (DARD) and DOLISA staff, VCA staff.

Integrating OSH chapters, focusing on OSH hazard identification, risk assessment and control measures, into already existing and applied training curricula and national training programmes such as the Farmer Coaching Visits (VCF) programme that is carried out by national agricultural extension workers, would also strengthen capacity development.

OSH awareness and knowledge raising should also take into consideration the needs of vulnerable workers. Examples of measures are workplace OSH policies and improvement plans that address workers' needs in relation to reproductive health, specific measures for young workers (e.g., intensive OSH training for young workers who joined the labour market only recently), or OSH policies that respond to the specific needs of elderly workers.

Moreover, the integration of OSH into the activities of coffee sustainability initiatives, for instance, those run by the Global Platform and IDH as well as private companies can be instrumental in disseminating OSH knowledge.

118 ILO.2014. Global Manual for WIND https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---safework/documents/instructionalmaterial/wcms_241020.pdf

Outreach for these activities could include farmers that are part of their support programmes or supplier networks. Another important vehicle for the dissemination of OSH knowledge is the VCA institutional structures through which cooperative members in the coffee sector can be trained.

These measures will require strong engagement and cooperation with multiple national agencies and their branches at provincial level, including VCCI, MARD, and MOLISA, as well as multi-stakeholder initiatives and international buyers. These measures should be applied in the short-term to build OSH knowledge among partners, implementers and end beneficiaries, as a foundation for the initiation of improvement measures.

OSH knowledge dissemination activities should be supported through the development of target group-specific communication and awareness raising material, such as posters, brochures, and fact sheets. The project should also consider making use of social media platforms or distributing OSH messages through SMS, websites and online newsletters.

Promotion of availability and use of PPE

To make PPE more easily accessible, it is recommended to (1) conduct further research on how it can be made more readily available and affordable at agro-input supply shops, and (2) explore whether cooperatives could facilitate better access to specialized PPE for their members by using supply arrangements similar to those already in place for agro-inputs. The supply of PPE should be accompanied by training (e.g., by the PPE producer, an external OSH service provider or an internal VCA OSH expert) on how safely and correctly use it.

To increase the user rate of PPE among farmers, it is recommended to reassess, through a gendered lens, the user-friendliness of some PPE that farmers find uncomfortable to wear or use. With this information, as needed, design adjustments by specialized service providers and institutions, such as VN NIOSH, can be promoted. This process should take into consideration the specific and differing PPE needs by gender and varying work responsibilities.

Familiarization with OSH requirements in certification schemes

Although prices paid for certified coffee are not always high enough for farmers to regard certification as a profitable way to increase income, it may be an advantage for them to be familiar with the requirements of certification schemes and with the processes to implement them. Should prices increase and the production of certified coffee become more lucrative again, farmers will be incentivised to participate in such schemes and invest in fulfilling their requirements, including those related to OSH.

It is therefore recommended that OSH training material for farmers, developed by the project or adjusted and disseminated by other organizations, such as VCA or NAEC, also include OSH topics covered as part of the certification schemes.

Improvement of access to occupational accident and disease insurance and occupational health services

As this study revealed, farm workers still have low awareness on OSH and limited knowledge on how to protect themselves against occupational risks. This makes them more prone to work-related injury or disease. Farm workers who are part of the informal economy will not have access to compensation or other social protection benefits should they temporarily or permanently lose their earning capacity due to work-related accidents and disease.

It is therefore recommended that the project commissions research to gain a deeper understanding of coffee farmers' access to social protection, including any income support benefits that could help sustain their livelihoods during periods of lost working capacity due to OSH-related concerns. Findings of this research could be used, for example, by project stakeholders to review the level of social protection benefits offered against the financial consequences of occupational accidents and diseases or advocate for an extension of occupational accident and disease insurance to include informal work in agriculture.

Occupational health services offered through public health care providers at community and district levels can play an important role in preventing negative work-related health outcomes. For example, through providing information on workplace safety and health risks that coffee farmers are exposed to and advice on how to prevent occupational diseases or information on specialized treatment. Whether and to what extent coffee farmers currently benefit from occupational health services could be integrated into research on coffee farmers' access to social protection as outlined above. Research findings could then be used to develop recommendations on how to improve access to occupational health services, including for farmers in remote areas.

Furthermore, the project could explore possibilities to support the implementation of the "Program on Care and Improvement of Workers' Health and Prevention of Occupational Diseases" (Program No.659/QD-TT) where it relates to the improvement of healthcare services at community level for informal sector workers.

Advancement of existing OSH data

To address lacking data on the occurrence of occupational accidents and diseases, the project could support the MOLISA Safe Work Department and other stakeholders, as relevant, to adjust and pilot the ILO's OSH accident and disease reporting, recording and notification guidance documents for employers and managers, and for workers.[119] Their use would strengthen employer and worker capacity to apply practical steps, in line with legal requirements, to report and record OSH incident data and to notify relevant national authorities about these incidents. Use would also promote workplace dialogue on OSH and the design of evidence-based OSH improvement measures. These guides are most suitable for small and medium-size workplaces, such as community level, small coffee processing facilities.

After completion of a pilot phase, national authorities could consider scaling up the application of the guides to generate data for the design of sector-wide OSH risk prevention strategies. In order to increase the availability of data on OSH conditions, with particular relevance for women coffee workers, it is recommended that the project conducts a survey. The survey should cover topics such as exposure to occupational risks, OSH-risk induced health outcomes, access to occupational health services, OSH knowledge, and attitudes and behaviour towards OSH. The survey findings could inform the design of OSH risk prevention strategies and activities that improve workplace safety and health, especially for women coffee farmers.[120]

Additionally, it is recommended that the project increases the availability of OSH data in the coffee supply chain through further research and workplace OSH assessments as well as the collection of OSH data from the private sector and certification schemes.

Technical support could also be provided to the MOLISA Safe Work Department at both national and provincial levels to increase its capacity to manage OSH data in agriculture. This could include data collection, analysis, use and dissemination, for instance through trainings on data management.

Integration of OSH training in the regular advisory and training programmes of the National Agricultural Extension Centers and the Viet Nam Cooperative Alliance

The national agricultural extension system under MARD could be a suitable platform to disseminate OSH knowledge to coffee farmers. This could be done through the system's government farm advisers at the district and community levels. It is recommended to integrate training on OSH into the National Sustainability Curricula (NSCs) for Robusta and Arabica and deliver it as part of the NAEC's regular training programme on coffee cultivation practices and during Farmer Coaching Visits (FCVs).

119 See the following two documents: 1) Reporting, Recording, and Notification of Occupational Accidents and Diseases: A brief guide for Employers and Managers (ILO 2021f); 2) Reporting, Recording, and Notification of Occupational Accidents and Diseases: A brief guide for Workers (ILO 2021g);
120 The project could apply, with adjustments, the methodology of the case study on "Women Coffee Producers in Mexico," produced by the Vision Zero Fund project for Mexico, Honduras and Colombia, with the support of IWCA https://www.ilo.org/americas/publicaciones/WCMS_829533/lang--en/index.htm

This approach may have the potential to be replicated in similar trainings by NAEC for other agricultural crops. It would raise awareness on OSH and the benefits of good OSH practices in agriculture in general. The possibility of incorporating OSH into NAEC's farmer training App *(Khuyen Nong Xanh)* could also be explored.

The VCA system might be a suitable platform for the rollout of OSH training as well. It would allow outreach to coffee buying and processing cooperatives, including their network of collectors and farmers, and cooperatives that sell agricultural inputs. Regarding the latter, the OSH training could highlight specific safety and health topics linked to the use of agricultural inputs such as fertilizer, pesticides and machinery.

Integration of OSH training in the regular advisory and training programmes of sustainability initiatives by the private sector and NGOs (e.g., IDH, GCP)

Training tools and approaches of national and international coffee producing / coffee trading companies, NGOs and multi-stakeholder initiatives could also be useful for disseminating OSH knowledge. This would create mutual benefits, in that their efforts to promote the social dimension of sustainable coffee production would gain more depth. Possible tools that could be harnessed are 1) the farmer training activities by IDH under SDM and GCP, 2) training activities by multi-national coffee buyers that potentially reach thousands of coffee farmers, and 3) collective action initiatives, such as GCP's initiative on the responsible use of agro-chemicals.

For VZF, the dissemination of OSH knowledge through well-known and established training programmes by companies, NGOs and multi-stakeholder initiatives would promote the importance of OSH, contribute to a scaling of OSH good practices and also increase the project's visibility among coffee sector stakeholders in Viet Nam.

Improvement of National OSH frameworks

The OSH Law (2015) includes provisions to improve workplace safety and health on farms, but they are not yet systematically implemented. It would be worthwhile analysing what causes this lack of implementation and how the OSH Law could be revised to better promote OSH in agricultural workplaces and strengthen the protection of farm workers against OSH risks. The upcoming revision of the OSH law could support this review.

Furthermore, the project could also explore whether the MOLISA Safe Work and the Labour Inspection Departments would be interested in technical assistance to further strengthen their OSH capacity in agriculture. By providing training on this topic to MOLISA staff, the discussion of OSH risks and deficits in agriculture and how to address them (e.g., through a Strategic Compliance approach) could gain more attention. Highlighting these issues in agriculture could encourage the implementation of stronger, future government-led OSH improvement measures.

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Annex 2: Coffee Value Chain Mapping Table

TRANSFORMATION PROCESS	CULTIVATION	COLLECTION	PRIMARY PROCESSING	EXPORT / PROCESSING	GLOBAL DISTRIBUTION/ DOMESTIC RETAIL
Products	Cherries Raw beans	Raw beans Parchment coffee	Classified green beans	Classified green beans / Ground coffee / instant coffee	Classified beans / Ground coffee / instant coffee
Size and types of actors	640,000 smallholders 40 state farms	Local private traders/ Coffee company agents	Semi-processors 71 cooperatives	176 roasters/ grinders; 8 soluble coffee producers; 11 mixed instant coffee producers; 100 registered exporters, incl. MNC	MNCs / Coffee shops, restaurants / supermarkets
Prices (Arabica)	VND 35,000/ kg	VND 35,800/ kg	VND 36,100 / kg	VND 36,800/ kg	VND 90,000 / kg
Prices (Robusta)	VND 32,500 / kg	VND 32,800/ kg	VND 33,300/ kg	VND 33,800 / kg	VND 80,000 / kg
Costs	VND 28,000 / kg	VND 32,700 / kg	VND 33,000 / kg	VND 33,500/ kg	VND 62,000 / kg
Profits	VND 4,500 / kg	VND 100/ kg	VND 300/ kg	VND 300/ kg	VND 18,000/ kg

TRANSFORMATION PROCESS	CULTIVATION	COLLECTION	PRIMARY PROCESSING	EXPORT / PROCESSING	GLOBAL DISTRIBUTION/ DOMESTIC RETAIL
Support Institutions	VICOFA VCA Farmer Union Women Union IDH / GCP NAEC / DARD FAO Agribank WASI	VICOFA DOIT DOLISA DoH VCCI		VICOFA DOIT DOLISA	
Operations	Land preparation Planting Farm maintenance Weeding Pest management Harvesting Hulling Packing Transport	Weighing Sorting Packing Transport Warehousing	De-pulping Fermentation Washing Drying Hulling Polishing Grading Sorting Bagging Transport	Roasting Grinding Manufacturing Storage Packing Transport	Transporting Loading / unloading Storing Selling Brewing
Main risk factors	Ergonomic risk (heavy loads, awkward postures) Safety Risks (cutting, slipping, tripping, falling, crushing) Physical risks (noise, UV, heat) Biological risks (infections, bites) Chemical hazards (agro-chemicals) Transport risks (accidents) Psychosocial risks (long work hours) Lack of welfare facilities	Safety Risks (cutting, slipping, tripping, falling, crushing) Ergonomic risk (heavy loads, awkward postures) Physical risks (noise, rays, heat) Transport risks (accidents)	Safety Risks (cutting, slipping, tripping, falling, crushing, electrocution, fire hazards) Ergonomic risk (heavy loads, awkward postures) Physical risks (noise, rays) Biological risks (dust) Chemical hazards (wastewater) Lack of welfare facilities	Safety Risks (cutting, slipping, tripping, falling, crushing, electrocution, fire hazards) Ergonomic risk (heavy loads, awkward postures) Physical risks (noise, rays, heat) Biological risks (dust) Chemical hazards (wastewater) Psychosocial risks (long work hours)	

Source: Research team, 2021 (including data from ICO, 2019, and own research data)

Annex 3: Coffee Development Planning in Lam Dong Province (2016–2020)

No.	District	2010	2015	2020
I	Growing area (HA) by district	143 213	155 172	150 000
1	Đà Lạt	3 805	3 948	3 000
2	Bảo Lộc	8 363	8 888	8 000
3	Đam Rông	5 840	7 649	7 500
4	Lạc Dương	2 621	3 373	3 000
5	Lâm Hà	39 445	40 215	40 000
6	Đơn Dương	1 097	1 769	1 500
7	Đức Trọng	12 822	17 272	15 850
8	Di Linh	41 527	41 651	41 000
9	Bảo Lâm	27 134	29 098	29 000
10	Đạ Huoai	255	389	350
11	Đạ Tẻh	211	606	500
12	Cát Tiên	93	314	300
II	Yield (tons / HA) by district	26.61	28.30	32.90
1	Đà Lạt	2.54	2.12	3.2
2	Bảo Lộc	2.49	2.6	2.98
3	Đam Rông	1.98	2.45	3.12
4	Lạc Dương	2.54	2.78	2.5
5	Lâm Hà	2.47	2.74	3.52
6	Đơn Dương	2.54	2.8	1.8
7	Đức Trọng	2.44	2.67	2.82
8	Di Linh	2.42	2.52	3.44
9	Bảo Lâm	2.45	2.72	2.86
10	Đạ Huoai	01.01	1.15	2.1
11	Đạ Tẻh	1.73	1.42	2.33
12	Cát Tiên	2	2.33	2.23
III	Harvest area (HA) by district	136 541	144 330	145 000
1	Đà Lạt	3 639	3 672	3 000
2	Bảo Lộc	7 876	8 183	8 000
3	Đam Rông	4 846	6 263	6 500
4	Lạc Dương	2 294	2 972	3 000
5	Lâm Hà	38 230	38 664	39 000
6	Đơn Dương	1 053	1 577	1 500
7	Đức Trọng	12 150	15 377	15 500
8	Di Linh	40 000	39 903	40 000
9	Bảo Lâm	26 102	27 064	27 800
10	Đạ Huoai	105	228	250
11	Đạ Tẻh	204	283	300
12	Cát Tiên	42	144	150

No.	District	2010	2015	2020
IV	**Production of coffee (tons)**	332.036	379.186	463.726
1	**Đà Lạt**	9.257	7.802	9.600
2	**Bảo Lộc**	19.630	21.275	23.800
3	**Đam Rông**	9.610	15.350	20.305
4	**Lạc Dương**	5.817	8.265	7.500
5	**Lâm Hà**	94.237	105.890	137.430
6	**Đơn Dương**	2.671	4.410	2.700
7	**Đức Trọng**	29.600	41.118	43.750
8	**Di Linh**	96.800	100.596	137.500
9	**Bảo Lâm**	63.870	73.480	79.581
10	**Đạ Huoai**	106	262	525
11	**Đạ Tẻh**	354	403	700
12	**Cát Tiên**	84	335	335

Source: "Decision No: 2261/QD-UBND ON APPROVAL OF COFFEE DEVELOPMENT PLANNING IN LAM DONG PROVINCE FOR THE PERIOD 2016 – 2020"

Annex 4: Details of tools and techniques used during data collection

Details	Data Collection Techniques			
Technique	Desk Review	KII – at national & provincial level	Workplace observation & Worker Interviews	FGD (at provincial level)
Tools	Internet / Documents (Annex 1)	Interview Guidelines	Workplace observation Guidelines	FGD Agenda and FGD questions
No. of respondents	--	30	WO: 5 Worker interviews: 12	2 FGD with 33 participants
Sources	• Statistics • OSH Law • Other legal documents w. OSH relevance (injury/health insurance, agro-chemical management, gender) • OSH Literature, incl. codes, manuals, principles, other project reports, studies, surveys • Coffee value chain report / studies	• ILO projects • Government officials (e.g., MARD, MoLISA, MoH, etc.) • Employer Associations; management of cooperatives • Worker organizations • State-owned enterprises and private sector (national and MNEs); coffee traders, certification agencies	Workers of all genders in coffee production and processing in Lam Dong province	• Workers of all genders • Smallholder farmers, seasonal and formal workers • Representatives of local authorities, associations and employers

Details	Data Collection Techniques			
(Main) Types of Information	• Coffee value chain data • OSH issues in coffee sector (risks, hazards, health, gender, geography, commodities, agro-chemicals, OSH models applied) • Data availability on OSH accidents, injuries, diseases in agriculture • Stakeholder Analysis • Legal and regulatory environment • Policy framework	• Coffee value chain data • OSH issues in coffee sector (risks, hazards, health, gender, geography, commodities, agro-chemicals, OSH models applied) • OSH awareness/ culture • Data availability • Stakeholder Analysis, incl. power relations • Legal and regulatory environment • Policy framework • Recommendations for interventions	• - Characteristics of target group (background, skills, experience etc.) • OSH issues in agriculture (risks, hazards, health, gender, geography, commodities, agro-chemicals, OSH models applied, protective measures) • Impacts on target group • Legal requirements • Assessment, perceptions, recommendations for interventions	• Discussing survey results: characteristics, OSH issues and measures, impacts, gender issues, policy environment, perceptions, recommendations for interventions

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