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► Environmental Sustainability in Market Systems and Value Chain Development for Decent Work

A short guide for analysis
and intervention design





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Environmentally-sound value chain or market system development can provide a crucial contribution to a pro-climate growth and to a just transition in several ways:

- it can support economic development and job creation in a manner that is sustainable and resilient
- it can foster the growth of green sectors maximising job and income opportunities
- it can facilitate economic diversification at the local level, providing alternatives to regions that are negatively impacted by climate change and response measures.

Why integrate environmental issues in the VCD / MSD approach?

Value chain or market systems development (VCD/MSD) is an increasingly popular methodology for **promoting growth and development**. Originally used by practitioners to identify solutions for generating jobs and income, it is now applied to improve working conditions, generate livelihoods for refugees, and more. The approach also holds **potential for analysing systemic constraints to environmental issues, particularly as they relate to growth, jobs, income, and other social issues**. VCD/MSD that addresses environmental considerations can play a vital role in promoting sustainable enterprise development and a just transition towards environmentally sustainable economies.¹

Integrating environmental considerations in VCD/MSD is increasingly important for several reasons

- ▶ Environmental challenges can undermine the **growth and viability of sectors and economic activities**, compromising the impacts of interventions promoting sector development without any environmental lens.
- ▶ Many **emerging business opportunities in the green economy** may provide decent jobs and increase income prospects.
- ▶ The approach ‘growth first, clean up later’ is no longer viable as it entails **economic and social costs in the long run**; rather, comprehensive environmental considerations must be addressed at the onset of any strategy seeking to advance economic and social development.

This note provides guidance and outlines key considerations for incorporating environmental objectives into VCD/MSD analysis and projects,

so as to leverage the approach to promote truly sustainable growth with decent work.²

► STRATEGY

The importance of sound objectives and clear priorities

VCD analysis and project interventions require **clearly defined objectives** from the beginning: this applies to environmental objectives. Oftentimes in projects, economic, social, and environmental objectives are clumped together under one goal. For example, one project goal might be to promote job-rich inclusive green growth. Seeking win-win opportunities to make progress towards all aspects of this goal—job creation, social inclusion, and environmental sustainability—is clearly valuable.

Nevertheless, **the relationship between economic, social and environmental dimensions is complex and must be understood in any given context**. Maximising employment creation might not yield optimal inclusivity, and maximising green growth might not yield the greatest number of new jobs. Therefore, it is vital to define clear priorities and a strategy for how the project will address constraints related to each objective—jobs, inequality, and environmental degradation. This is key to fully assess opportunities and maximise impact through interventions that work systemically to reach the overarching goal, **leveraging synergies**, but also **dealing with potential trade-offs**.

The project's environment-related objectives

When working on environmental sustainability, it is important to unpack this term, as it can mean

¹ This guide targets readers that are already familiar with the market system development approach. If more information on the MSD approach is needed, please refer to the ILO's Guide on Value Chain Development for Decent Work https://www.ilo.org/empent/areas/value-chain-development-vcd/WCMS_434362/lang-en/index.htm

² For lessons learnt from project implementation, please see the note 'Market System Development and the Environment' https://www.ilo.org/empent/Projects/the-lab/WCMS_764221/lang-en/index.htm

different things. In the context of MSD, specific environment-related objectives could be to

- ▶ Promote **growth** and **jobs in a 'green' sector**
- ▶ 'Green' / improve the **environmental sustainability** of a sector
- ▶ Increase the **climate change resilience** of a sector
- ▶ Promote a **do-no-harm approach** in supporting sector growth

It is necessary to determine the type of environmental objective for a project at its outset, since this will influence the sector selection process, the key questions in the market systems analysis, intervention design, partner selection, and the ultimate impact of the project. Not doing so risks having a far less meaningful, or potentially overall negative, environmental impact.

Promoting green jobs through the **development of a green sector**³ is different from the "greening" of a conventional sector. The prior aims to create jobs and increase income opportunities while benefiting the environment through the growth of a sector or sub-sector producing environmental goods and services; the latter strives to **improve a sector's environmental performance**, by, for instance, reducing carbon emissions.

There are links between the two objectives, and a project can aim at both. However it must also consider them each in its own right in order to **identify meaningful opportunities** to achieve them.

The same notion applies when looking at do-no-harm growth and **climate change resilience**. Even though job and employment related interventions can contribute to these objectives and vice versa, they should be looked at as their own distinct objectives so to determine how best to reach them.

Regardless of the project's focus, VCD/MSD interventions for job creation and sector development must **at minimum avoid adverse impacts to people and the environment**. Where avoidance is not possible, these impacts should be minimised, mitigated and managed. **Environmental safeguards**, discussed further under a do-no-harm approach, are tools that have been commonly used to mitigate and manage potentially adverse impacts.

In summary, a key condition to address meaningfully environmental sustainability is to **establish clear and explicit environmental objective(s)**. Systemic analysis must be able to **zoom in on the constraints relevant to the environmental objective**, understand their causes, and **zoom out to consider the relation with socio-economic constraints and objectives**. This will help projects avoid the pitfall of pursuing opportunities that may appear more perceptible but have limited potential impact.

³ Green sectors are sectors that produce environmental goods and services. Environmental goods and services are those that directly benefit the environment or conserve natural resources. They can be specific environmental services (such as waste and wastewater management and treatment, energy and water-saving activities, conservation and protection), environmental sole-purpose goods, which have no use except for environmental protection or resource management (e.g., catalytic converters, septic tanks, installation of renewable energy production technologies), or adapted goods that have been modified to be cleaner or more resource efficient (such as buses with lower emissions) (ILO, 2018).

Typical environmental challenges in and around a value chain

The following environmental factors affect and are affected by the growth and development of value chains and sectors

1 Biodiversity loss

- ▶ Biodiversity loss is caused by climate change, deforestation, soil degradation, overexploitation (over-harvesting, overfishing), disruption of ecosystems, and pollution, all linked to human activity.
- ▶ Significant biodiversity generally occurs in value chains associated with the extraction of natural resources, as well as on and around production sites.
- ▶ Biodiversity loss can undermine the viability of the sources upon which jobs and sectors depend, thus affecting prospects for long-term operation; it can also increase the vulnerability to disease and shocks, as is the case, for example, for food systems.

2 Greenhouse gas emissions

- ▶ Greenhouse gases (GHG) emissions trap heat in the atmosphere and cause climate change. Carbon dioxide (CO₂) constitutes the majority of greenhouse gases emitted, followed by methane (CH₄), nitrous oxide (N₂O), and fluorinated gases.
- ▶ CO₂ is caused by the combustion of fossil fuels, which happens most significantly in transportation, electricity production, and industrial activities. CO₂ is also released into the atmosphere with degenerative soil management. Carbon sinks, such as rainforests and regeneratively managed land, are a way to reabsorb carbon back into the ground.
- ▶ CH₄ emissions are most prominent in agriculture (livestock production), waste management (organic materials in landfills), and energy (natural gas and petroleum production)
- ▶ N₂O is emitted in agriculture (over-application of fertilisers), transportation (fuel combustion), industry (chemical production for synthetic materials), and waste management (treatment of waste water).

- ▶ **Fluorinated gases** are emitted via their use as refrigerants and aerosols, as well as in the manufacturing of semiconductors and electrical transmission equipment.

For an in-depth dedicated analysis of environmental implications, life cycle assessments (LCA) can be used to assess and quantify different environmental impacts, including global warming, acidification, human health issues, resource depletion, land use, etc. Input-output life cycle assessments are commonly used to estimate the carbon footprint of value chains.

3 Waste management and land, air and water pollution

Waste management in value chains entails the management and reduction of waste produced by enterprises, as well as the collection, treatment and management of waste within the waste management sector in the forms of solid, liquid, and gas.

- ▶ **Solid waste** is generated by economic activity. High waste generation and low recycling result in inefficiencies in the production system. In addition, when waste is not appropriately disposed, it can contribute to environmental degradation and emissions.
- ▶ **Liquid waste** (sewage, industrial chemicals) often travels through pipes and can end up in natural water sources and, if unmanaged, can contaminate soil and water bodies.
- ▶ **Gaseous waste** is primarily generated through combustion, which can be captured but is typically released into the atmosphere, contributing to air pollution. Poor waste management does not only bring environmental costs, but it also creates insanitary conditions and health and safety issues for local communities. *For a dedicated in-depth analysis, material flow analysis can be used for tracking waste flows and substances within a value chain.*

4 Resource efficiency and energy

- ▶ As human activity grows, so does the demand for resources, particularly energy, land, and water.
- ▶ **Energy:** For as long as the world relies on fossil fuels for energy, there will remain a direct correlation between CO₂ emissions and energy use. Shifting

to renewable energy sources can help reduce sector growth and emissions. In addition, the more energy-efficient a value chain becomes, the more it will reduce GHG emissions. In addition, the more energy-efficient a value chain becomes, the more it will reduce GHG emissions as well as energy costs.

- ▶ **Land:** Land is essential for human survival, but poor agricultural practices deplete biodiversity and water-holding capacity of the soil, and the continued expansion of land use for agriculture often results in deforestation.
- ▶ **Water use and conservation:** Water is increasingly becoming a scarce resource around the world, exacerbated by poor water management. This can result in an insufficient water allocation to the environment as well as vulnerable communities. *For a dedicated, in-depth analysis, tools like water footprinting can help quantify and assess the quality of water inputs in value chains.*

5 Climate change impacts and disaster risks

- ▶ Changes in climate affect weather patterns and cause floods, droughts, heat waves and extreme storms that devastate livelihoods, particularly in vulnerable sectors like agriculture and tourism.
- ▶ Reducing the risks and negative impacts of climate change include **mitigation strategies** (reducing GHG emissions) and **adaptation** (establishing systems for humans to moderate harm and deal with climate change).
- ▶ Developing countries are generally the most impacted by climate change.

The figure below depicts a standard (hypothetical) value chain, including raw material extraction, transport, storage and wholesale, production, packaging, retail, and disposal.

As shown, environmental issues can occur at various points in the value chain, which are further compounded by interconnected value chains via inputs and service provision, as well as regulations.

Because of the complex and integrated nature of environmental issues in and around value chains, it is important to **mainstream environmental considerations into the project strategy and analytical process.**

Figure 1: Value chain depicting environmental risks and impacts



► ANALYSIS

Sector selection criteria

Criteria reflecting the defined environmental objective must be integrated into the sector selection process, and they will vary depending on the type of environmental objective. Since **environmental criteria are only one subset of a multidimensional set of criteria**, the selection of sectors will have to take both environmental and non-environmental objectives into consideration (i.e. potential for job creation, growth, and environmental improvements), depending on the project's overall goal, which can be done through weighting the criteria.

The table below outlines the main considerations for designing sector selection criteria and not the criteria themselves. Specific

guidance on criteria can be found in the *Sector Selection and Rapid Market Assessment for Addressing Environmental Sustainability in Value Chain Development* template, complemented by the general [Guidelines for Value Chain Selection: Integrating economic, environmental, social and institutional criteria](#) (2015).

Market Systems Analysis

Having a clearly **defined environmental objective** becomes even more important at the market systems analysis stage, as it will **shape market system dynamics**, as well as **determine the nature of interventions** and **types of stakeholders** that the project will consider partnering with. Below are considerations to be made when conducting a market systems analysis, depending on the environmental objective.

Environmental Objectives	Sector Selection Considerations
Promote growth and jobs in a “green” sector	The sector selection should short-list green sectors whose growth will continue to have a net-positive impact on the environment (e.g. renewable energy). Criteria should then look at which of those sectors holds the highest potential for creating decent jobs.
“Green” / Improve environmental sustainability of a sector	Criteria should assess the potential capacity of the sector to reduce its overall negative impact on the environment, including through improved circularity.
Increase climate resilience (adaptive capacity) of a sector	Criteria should assess the gravity of climate change risks in the sector and the opportunities for increasing resilience within the scope of the project.
Promote a do-no-harm approach	Criteria should assess the potential capacity of the sector to grow without furthering negative environmental impacts, or the possibility to eliminate, reduce, or mitigate those impacts.



Alex Eckermann/UNSPLASH

Objective 1:
Promote growth and jobs in a green sector

If the objective is to promote jobs and growth in 'green' value chains or sectors, such as renewable energy, green construction, or sustainable agriculture, the **approach is widely the same as any market systems or value chain analysis**, since the selection of sectors or value chains is already narrowed down based on the criterion that it be a green sector.

The assessment will examine the supporting services and rules that influence the performance of the value chains, and any constraints that could prevent the creation of decent employment and/or enterprise development opportunities.

However, the project may need to **probe opportunities and engage with actors** outside the more standard market systems project such as the Ministry of Environment and other environmentally motivated stakeholders.

Example

A market systems analysis of solar energy generation identifies opportunities to facilitate training in solar panel installation and maintenance in rural areas that are energy deprived. The intervention holds potential for job creation in a green sector, while also extending basic services to underserved communities.

Objective 2: 'Green'/Improve the environmental sustainability of a sector

Using market systems analysis to identify opportunities for improving the environmental performance of a value chain could entail looking at emissions, waste management, and/or natural resource consumption or depletion, as well as their links to human health. Analysing these issues in a market context can become quite complex, but the usual **Market System Assessment tools** can also be applied to understand environmental performance. In this case, instead of looking at the supply and demand of a product or service, we look at the **supply and demand of an environmental outcome** (as it relates to that specific value chain).

Example

If the project's outcome is to improve biodiversity stewardship in an agricultural value chain, we can analyse the supply and demand of biodiversity along the value chain as well as the system functions that may enable or hinder it. In the case of agriculture, farmers have the most direct link to biodiversity because they manage the soil, so we could say that (in a market context) farmers are the first stop suppliers of biodiversity. Moving along the value chain, from transportation to transformation and eventually to the end-of-life phase, various inputs and processes may also impact on (the supply of) biodiversity stewardship. We can also consider that anyone that buys sustainably produced food are the consumers of biodiversity stewardship. Support services that influence supply may include training and information on sustainable farm practices, finance to support farmers to transition to a new business model, organic inputs and certification mechanisms. Rules might include policies that incentivise or disincentivise farmers to adopt sustainable farm practices or legislation affecting land rights. The supply of biodiversity can also be analysed further along the value chain, like where transportation and transformation of the product have significant impacts on the natural environment.



Zbynek Burival/UNSPLASH

All of these examples are typical functions that might be mapped out in a traditional market system or M4P 'donut'⁴ to identify the underlying causes to the underperformance of a value chain. However, the underlying causes to **environmental constraints** may not be the same as, or correlate with, **economic constraints**. It is therefore essential to understand them both, as well as the ways they may be connected.

In addition to applying a MSA methodology to environmental issues, additional tools for understanding environmental performance along value chains can be deployed for more targeted analysis ranging from a simplified environmental inventory tool (see annex) to more sophisticated approaches, for example life-cycle assessments.

The **circular economy** is a specific component of environmental sustainability. The circular economy ***'is based on the principles of designing out waste and pollution, keeping products and materials in use, and***

regenerating natural systems' (Ellen MacArthur Foundation). There is a tendency to associate the circular economy to the waste sector. However, the concept of circularity can also be considered in the context of any value chain by looking at the material inputs and outputs throughout production. To examine **circularity in a value chain**, we need to ask questions about different stages.

- ▶ At the input level, questions to be asked include how inputs are being sourced, whether inputs are end-products of the sector or of another industry, and if not, whether there are opportunities for sourcing recycled inputs.
- ▶ At the level of production, one would need to look at whether there is scope for increasing efficiency and minimising waste.
- ▶ At the output level, one should look at whether the product can be repaired or reused, and whether it can eventually be recycled, or used for energy recovery at the end of its life cycle.

⁴ See <https://beamexchange.org/>

In addressing such questions, the **waste hierarchy** needs to be kept in mind. The most preferable options in environmental terms are reducing waste and optimising the use of inputs and extending the product lifecycle through reuse, if it is not possible looking at options for recycling, and when these are exhausted, considering waste-to-energy opportunities, where feasible⁵.

Example

Let's say a project conducts an MSA on footwear and discovers that one of the primary inputs in the value chain is virgin rubber. It also finds that the product usually ends up in a landfill after five years of use, where it takes over fifty years to biodegrade. In seeking opportunities to promote better circularity, the project can consider how the business model might adapt to incorporate recycled rubber into the value chain by looking at the existing supply of reusable rubber.

Possible solutions may include sourcing spent car tires that also end up in landfills or introducing a take-back scheme from customers, so that the remaining rubber on shoes can be recycled. Also with respect to the "end-life" stage, for those product components for which there is no feasible opportunity to recycle or repurpose them, such as shoe soles and shoelaces, an MSA can look for opportunities to increase their biodegradability, so that there is less long-term or environmentally harmful waste.

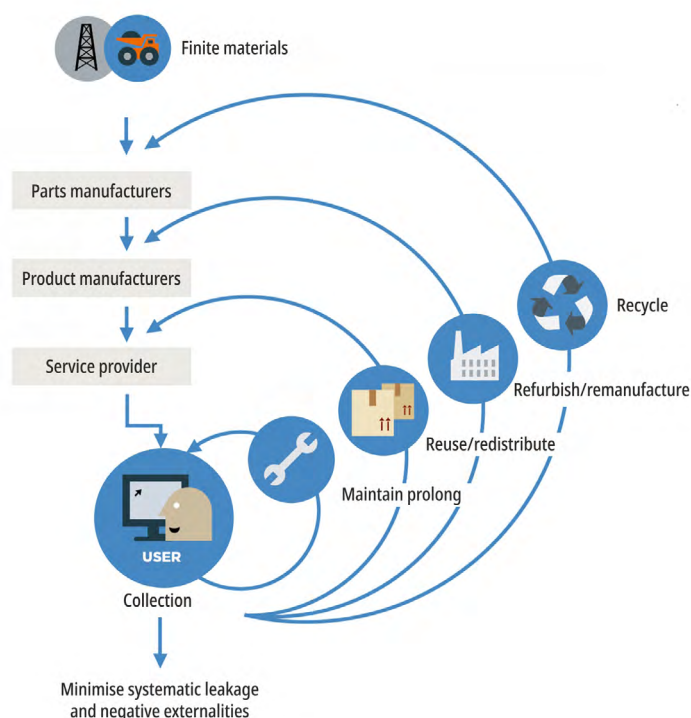


Illustration of a circular business model–electronics.

Source: Ellen Mac Arthur Foundation

Objective 3: Increase climate resilience of a sector

Market systems analyses focused on jobs and income often look at **services and regulations that influence the adaptive capacity of value chains**. This is particularly the case when the target group is especially vulnerable to natural disasters—such as droughts, floods, and storms—as the link is more obvious in terms of the immediate threat that natural disasters pose on the livelihoods of the target group and their ability to work in the sector. However, to consider the issue more comprehensively, **an MSA can also look at adaptive capacity through a market systems lens / M4P donut.**

⁵ The feasibility of replacing inputs will depend on a number of factors. International value chains may face additional constraints, since lead buyers may require strict specifications and may not be open to change in raw materials.



Example

If the project is working in different horticulture value chains that are increasingly negatively impacted by droughts, we can examine the supporting functions and rules that prevent the sector from adapting, such as the provision of stress tolerant seeds, crop insurance, and irrigation management training. An MSA could look for opportunities to build or strengthen market relationships between farmers and seed providers, or support insurance providers to develop appropriate coverage for at-risk farmers. By understanding how these inputs and services, or lack thereof, influence the adaptive capacity of the target group, as well as the reasons for their absence or underperformance, projects can design interventions for filling the gaps, usually eliciting both an environmental and an economic benefit.

Objective 4: Promote a do-no-harm approach

To promote a do-no-harm approach, potential risks of negative environmental impacts deriving from sector growth need to be identified and managed. Typically, risks posed by sector growth are assessed, and if identified, measures are put in place to eliminate or, if not possible, reduce and mitigate such risks. If **promoting a do-no-harm approach** is the objective, then the sector selection process should have already undertaken elements of this type of risk assessment and recommended a sector for which there is potential for growth and risks of increasing the environmental footprint can be minimised and managed. The **MSA**, therefore, should **focus on ways to address these risks**, as well as **ensuring that any adverse impact does not fall disproportionately on marginalised or disadvantaged groups**.⁶

⁶ See the UN Model Approach to Environmental and Social Standards here: <https://unemg.org/modelapproach/> for a key reference on environmental and social safeguards.

Examples

A project may find that the growth of an agricultural value chain could result in the continued expansion of farmland towards a nationally protected area with a fragile ecosystem. The MSA would then look at the root causes of encroachment and identify measures to reduce or mitigate the potential negative impact, which may include awareness campaigns or mechanisms for encouraging expansion to alternative areas, or even to look at other economic opportunities, like mechanisms for increasing productivity and value addition, that would reduce the need for more land. Depending on the focus of the project and if opportunities exist, alternative livelihood strategies could also be developed to help beneficiaries to diversify income sources.

In the case of a project in coastal areas, if the growth of the fishing industry presents risks of potential stock depletion, then the project should determine whether there are safeguards that could be put into place to mitigate this risk. In some cases, new business models and practices can be developed that incentivize fishermen to use sustainable fishing practices and that reduce spoilage through improved cold chain facilities.

However, if the geographical and environmental conditions are such that any growth of the sector will inevitably result in the encroachment of a nationally protected area of high environmental value or an endangerment to biodiversity, the intervention focus should be reconsidered and possibly redirected towards economic activities that do not present such risks, for example ecotourism. Nevertheless, such circumstances could normally be avoided if a certain level of environmental risk assessment is carried out during sector selection.

General considerations in addressing environmental sustainability in sector selections and market system analysis

Both during sector selection and market system analysis, it is important to ensure that **environment-related stakeholders** are included in the research process. Depending on the context, these may include organic farmers associations, environmental NGOs, government agencies with an environmental mandate, eco-certification bodies, suppliers of environmentally friendly agricultural inputs, and others. The inclusion of environment-related stakeholders in the research process will **enable the surfacing of environmental concerns and opportunities**.

It should be noted that while it is important to understand the constraints to the environmental objective, environmental analysis should not culminate in an independent report with separate recommendations. In market systems development projects, environmental recommendations that are not tied to economic solutions will not pass the sustainability test. Rather, **an overall market systems analysis should integrate environmental, social, and economic components** into a single report, highlighting the links between them. This will allow for more holistic intervention design with greater potential for high-impact win-win solutions.

► ACTION

Intervention design

Interventions are designed to address the underlying causes to system constraints identified during the analysis. Depending on the **type of environmental objective**, interventions will have **different targets** and will thus be designed to achieve different ends.

When promoting jobs and growth of a green sector, interventions will seek to address constraints related to employment and income and could include activities related to, for example, skills building and business development. On the other hand, interventions to improve environmental sustainability are more likely to focus on raising the environmental performance of processes and practices throughout the value chain.

If circularity is a specific focus, interventions may target greener sourcing of inputs, whether that be through facilitating new market relationships with other industries,

or through developing a business model for buy back schemes. Interventions designed to increase climate change resilience will likely look at facilitating inputs and services for vulnerable groups, and interventions under a do-no-harm approach are more likely to have to do with risk reduction and mitigation.

The table below provides an illustration of **possible constraints and intervention areas linked to the various types of environmental objectives**. It should be noted that these are examples, and that actual constraints and interventions will be based on the specific analysis that will be carried out.

With environmental objectives, interventions designed to achieve environmental goals may directly contribute to improving its economic performance—such as introducing stress-tolerant crops that yield better harvests (adaptation) or facilitating greater energy efficiency that produces cost-savings (greening), resulting in a ‘win-win’.

However, in other cases this immediate link might not be so apparent, at least in the short-term.



Environmental objective	Interventions might address constraints to	Possible intervention areas
Promote growth and jobs in a "green" sector	Employment and income (in a green sector)	Skills building, facilitation of new market relationships, business development training
"Green" / Improve environmental sustainability of a sector	Greener processes and practices	Waste reduction, sourcing of greener inputs, new business models
Increase climate resilience (adaptive capacity) of a sector	Climate change adaptation	Improved access to relevant inputs and services, access to insurance
Promote a do-no-harm approach	No-harm growth	Development of environmental safeguards to reduce or mitigate environmental threats of sector growth

Example

Considering the example of organic farming, perhaps the domestic market for organic food is thin and does not present the same growth prospects as conventional farming methods for better productivity. In this case, a project would have to consider how strongly it prioritizes its environmental objectives in relation to other objectives, like promoting jobs and income on a large scale. If the latter are key priorities of the project, it would need to look for options for supporting access to the organic export market (if the market is large and this approach is feasible). Alternatively, if the focus remains on the domestic market, the project could promote the growth of agriculture through conventional means but incorporate good practices that produce environmental and economic co-benefits, or, at a minimum, that address potential negative impacts. A weighting of priorities would always have to be combined with an understanding of the feasibility of different options.

Well-designed interventions, based on the environmental and socio-economic

relationships identified in the analysis stage, will have to be expressed through results chains that reflect the anticipated market changes that ultimately lead to the desired impact. All assumptions regarding the links between environmental and socio-economic change should also be clearly defined, so that if those assumptions prove to be false, a project team can adapt interventions to new information.

Example

Say a project team designs an activity to link farmers to providers of organic inputs to help preserve soil biodiversity and curtail land degradation. The project anticipates that after using the organic inputs, farmers will fetch higher prices from buyers of organic produce. Assumptions might include that farmers have the knowledge and equipment needed to use the inputs or that there is enough market demand to make switching to organic farm practices economically sound. Once interventions are implemented, if uptake proves slower than predicted, the project team can return to the project assumptions and consider changing or redirecting interventions based on the new information.

An important note: Any changes to objectives should be discussed with the project's financing institution/donor. While action to address climate change and environmental degradation is quickly becoming a high priority for donors, they still typically expect measurable results within the project's lifetime, which can be as short as one year.

Clearly communicating and agreeing on these priorities with the donor/financing institutions, while setting realistic expectations is imperative to the project's success and continued support.

Partner selection

In assessing potential project partners to work on environmental objectives, the same skill-will framework can be used as in the ILO's standard VCD/MSD methodology⁷. This tool allows projects to assess the relative capacity and motivation of existing stakeholders to play a role in interventions.

We already determined that, depending on the specific objectives and priorities, environmental constraints are best analysed both independently and in relation to other project objectives (e.g. jobs, income). It follows that the capacity and motivation of project partners to contribute to the environmental objectives should also be assessed to ensure that the project has one or more partners that are capable of bringing about and sustaining desired change as it relates to environmental objectives.

This may result in having partners that are well-suited to contribute to all objectives (for instance, labor unions that have vested interests in both employment and green aspects to sector growth), but it may also result in having partners that are more strategic in reaching one component of the overall goal, and others that are best for reaching another (for instance,

different government ministries). It does not imply that working towards environmental objectives would be done in isolation; on the contrary, by bringing different stakeholders together with different strategic interests that contribute to the same goal can open the door to synergetic opportunities.

Monitoring and results measurement

One of the main tools to intervention design in VCD/MSD is the **results chain framework**, which **maps out the logical steps that are expected to happen in between the project's intervening action and the anticipated outcome and eventual impact**. If a project intends to report on how it contributed to environmental sustainability, then it needs to imbed environmental change into its results chains, from the activity level to the output, outcome, and impact levels. This can be reflected in different ways and at varying degrees, depending on the objective. Through monitoring projected change using the results chains, it also enables the project to recognise when the intervention is not making progress towards the environmental objective, allowing it to change course if needed.

Project staff

While project resources are finite, ideally at least one project staff member would have an solid understanding of the dynamics between market development and environmental sustainability, as well as knowledge of the existing environmental and economic policies in the country that impact on the natural environment.

However, this can also vary depending on the specific objective and related interventions. If, for instance, a project intends to improve the environmental sustainability of a value chain, and interventions include introducing incentive mechanisms to adapt business

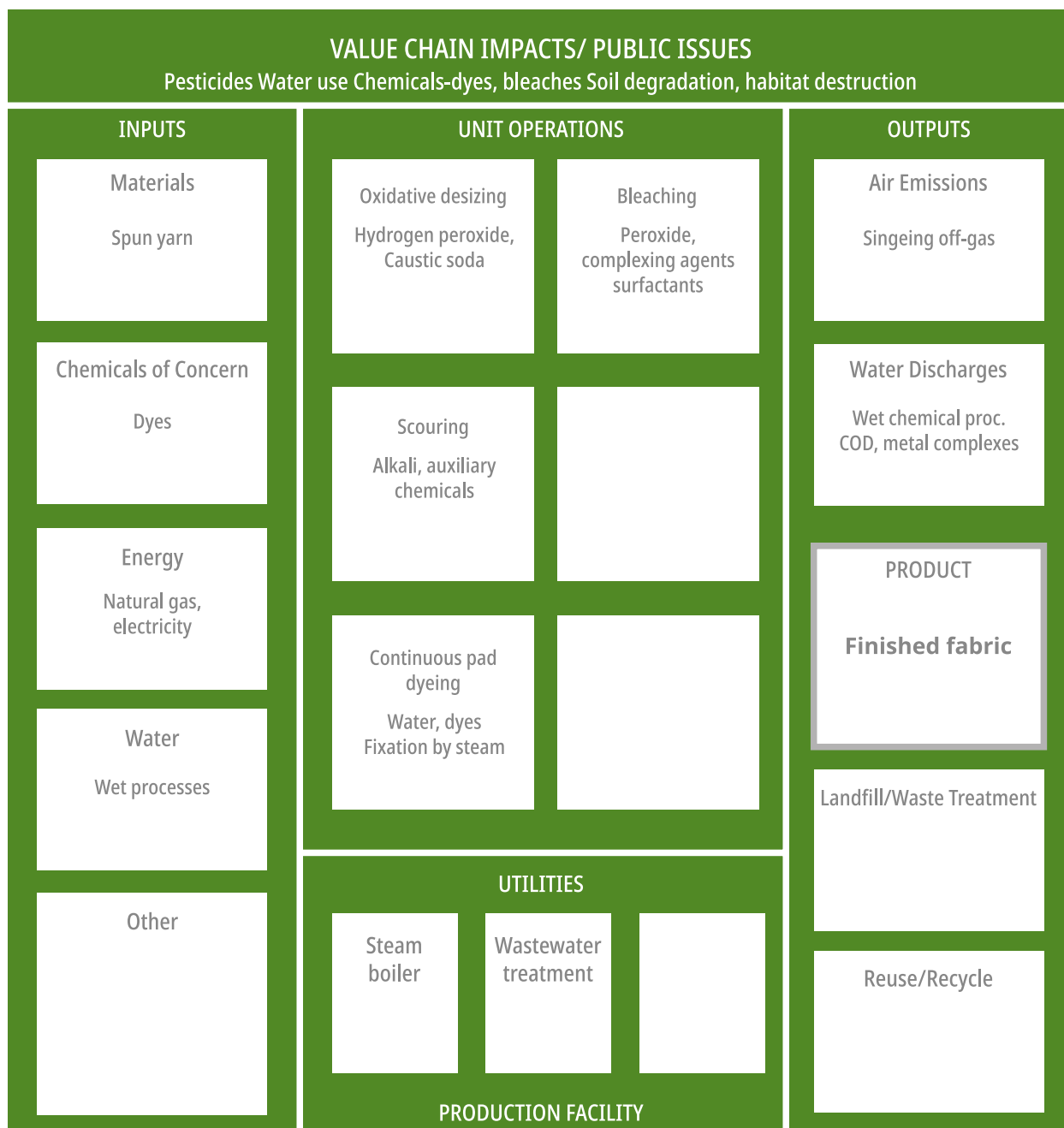
⁷ See <https://beamexchange.org/>



models, then having a full-time staff member with a relevant background would be essential. On the other hand, if a project uses a do-no-harm approach, it may be enough to hire a consultant to produce an analysis of risks and recommendations on how to address them. In some cases, project teams will consist of an environmental expert, an economist, and a social expert.

Regardless of the makeup of the project team, it is worth emphasising that team members should work closely together to ensure that the scope is jointly defined and that all stages of analysis and intervention design are completed together. The environmental objective should be an integral component throughout the project cycle and not operate in isolation.

VALUE CHAIN IMPACTS/ PUBLIC ISSUES				
INPUTS		UNIT OPERATIONS		OUTPUTS
Materials				Air Emissions
Chemicals of Concern				Water Discharges
Energy				PRODUCT
Water				
Other		UTILITIES		Landfill/Waste Treatment
				Reuse/Recycle
PRODUCTION FACILITY				





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► Contact details

International Labour Organization
4, Route des Morillons
CH-1211 Geneva 22 – Switzerland

Green Jobs Programme
Email: greenjobs@ilo.org