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Data-enabled Business Models and Market Linkages Enhancing Value Creation and Distribution in Mediterranean Fruit and Vegetable Supply Chains (MED-LINKS)

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DELIVERABLE 2.3 – REPORT ON TARGETED VSS AND GUIDELINES FOR IMPLEMENTATION

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ABBREVIATIONS:

AB	Agriculture biologique
AOP	Appellation d'Origine Protégée
EOL	Economy of love
EOSC	Export-oriented supply chain
GPP	Green public procurement
PGS	Participatory Guarantee System
SFSC	Short food supply chain
TSG	Traditional speciality guaranteed
VSS	Voluntary sustainability standard

EXECUTIVE SUMMARY

This deliverable is composed of 2 parts:

- **PART 1 – Report on targeted VSS and guidelines for implementation**
- **PART 2 – Training content from WP2**

PART 1:

The purpose of this part is to propose an optimized implementation of the sustainability standards identified in Deliverable 2.2 that are adapted to the local clusters and the context of operation within each partner country. The report revisits the characteristics of each standard and its sustainability outcomes, then it reviews the outcomes of the SWOT analysis and stakeholder assessments of each standard, to capitalize on the strengths and opportunities, bypass weaknesses and avoid potential threats. By exploring these different aspects, the report aims to come up with directions for the optimization of the standards for each country and relevant supply chain and a proposed recommendation for an optimal implementation.

PART 2:

This part contributes to the presentation of training content modules (TM) drawing from a selection of key information developed within WP2 and presented in deliverables D2.1, D2.2, and D2.3.

Deliverable 2.1 – Report on review and analysis of existing sustainability standards and paths (HUSD),

The objective of this deliverable was to demonstrate the mapping of the active/operating sustainability standards and schemes for the fruit and vegetables sector within the three supply chain systems (SCS) of interest, in each of the partner countries (Egypt, Italy, France, Greece, Morocco).

The training content drawn by Deliverable 2.1 is contained in TM2.1

Deliverable 2.2 – Report on benchmark framework of optimized sustainability paths suited to local clusters (CIHEAM-IAMM),

The objective of this report was to define a benchmarking framework enabling an evaluation of the impacts of standards on the triple bottom line basis.

The training content drawn by Deliverable 2.2 is contained in TM2.2

Deliverable 2.3 – Report on targeted VSS and guidelines for implementation (SDF).
The aim of this deliverable was to deliver guidelines on the directives of the new or optimised sustainability standards based on the newly proposed/tailored VSS emerged from the previous Deliverable (2.2).

The training content drawn by Deliverable 2.3 is contained in TM2.3 to TM2.4

The main contributions to Sustainable Development Goals (SDGs) of the activities performed and the results obtained are outlined at the end of the report.

PART 1 – REPORT ON TARGETED VSS AND GUIDELINES FOR IMPLEMENTATION

1.1 Introduction:

Voluntary Sustainability Standards (VSS) are compliance schemes established to promote optimal processes of operations in a sustainable manner (UNFSS, 2013). While they are voluntary in nature, adopting these standards can help address various economic, social, and environmental issues as they convey crucial information to different stakeholders and incentivizes them to comply with rules and norms to maintain their performances while improving their sustainability outcomes (Marx et al., 2022; Wijen & Flowers, 2022). Studies have shown that compliance with VSS in the agricultural sector can lead to positive economic, social, and environmental benefits (Meemken et al., 2021). However, these benefits are not guaranteed as they can lead to negative or mixed outcomes depending on a myriad of reasons. The effectiveness and sustainability outcomes of VSS are highly dependent to a wide range of factors, notably the rigidity of the standard, differences between stakeholders, the degree to which adopters implement the norms indicated by the standard, the feasibility of implementation, as well as environmental, geographic, and socio-cultural contexts (Meemken et al., 2021; Wijen & Flowers, 2022). Thus, the adaptation and outcomes of VSS are not uniform and can diverge from the intended impact, particularly in fields where heterogeneous actors and stakeholders are involved (e.g., supply chains of fruits and vegetables). The presence of different actors such as producers, companies, regulators, inspection authorities, NGOs, have different interests and can interact differently with the standard at hand, this notion draws from institutional and behavioral theories stating that different actors have different roles, interests, knowledge, and access to information which make them have different understanding to the implementation and envisioned outcomes from the adoption of VSS (Dietz et al., 2019; Wijen & Flowers, 2022). Therefore, sustainability standards are often influenced by the understanding of norms and sustainability issues, knowledge motivations and interactions of the stakeholders who adopt them. Several sustainability standards have worked on addressing these behavioral and institutional challenges by becoming more flexible and implementing uniform norms and conditions that reduce major differences and bridge the perspectives of different involved stakeholders. However, this flexibility should not ignore geographic, political, and socio-cultural contexts that differ from one region to another and within the same region. Thus, the optimization of VSS based on these contexts is a crucial step to ensuring their proper implementation and achieving the intended sustainability outcomes. The term “optimization” refers to the process of implementing ensuring optimal operations and outcomes to special conditions, contexts, and constraints, to minimize or maximize intended outcomes. It is considered

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and one of the most important processes for achieving sustainability outcomes and it is not reliant on a specific tool or method but is considered as a flexible approach that relies on available methods and logical frames to properly improve the implementation depending on the context at hand (Sadollah et al., 2020)

The SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis technique is a decision-making tool used to provide a comprehensive assessment of a given activity, operation, or strategy, and to identify possible courses of actions and optimizations. In our case, the SWOT analysis is used to comprehensively assess the selected VSS by defining four factors; Strengths refers to the internal elements of VSS that facilitate its implementation and reaching its intended goals, whereas weaknesses are the internal elements that interfere with that success. Opportunities are external aspects that can help achieve these goals, and threats are the external factors that represent barriers to the VSS achievement and outcomes. Hence, potential optimization of VSS will be based on the SWOT results and will be identified through recommendations that aim to exploit and capitalize on the strengths and opportunities, while minimizing and averting weaknesses and threats.

1.2 Methodology:

Fifteen standards have been selected from the last previous tasks within five country partners, two standards for SFSC and one standard for EOSC for each partner based on a set of several criteria. The Egyptian team had developed a survey to identify the current obstacles that hinder the growth of the selected standards to reach and cover the small stakeholders.

The survey is divided into two groups of questions. In the first group, the institutional and policy barriers for general barriers of adoptions are addressed. This part focuses on the assessment of the constraints related to the adoption of the standard (cluster related, institutional, policy, environmental, economic, social, etc.). The second group provides a more specific assessment of each selected standard to understand the core obstacles of implementation. Based on SWOT analysis conducted on T. 2.2 for each sustainability standard allowed the identification of specific areas of weaknesses and threats. Which also includes interventions/actions that recommend minimizing said weaknesses and avert potential threats.

1.3 Findings: selected VSS in each country

1.3.1 Italy

Several institutional and policy barriers were highlighted in short food supply chains and export oriented supply chains, these barriers were particularly related to the lack of awareness regarding the existence of certifications standards, awareness levels need to increase in order for the standard to reach its full potential and achieve its intended benefits, this can be done through government communication strategies and interventions to promote the standards and its benefits, but the project can also support the introduction of these standards, through training courses, workshops, and digital promotion (video pills), as well as explain the usefulness of the certification to motivate its adoption. The risk of incompatibility of specific standards to SFSC is another issue that needs to be taken into consideration when promoting a standard, thus the selection and adoption should be mindful of the local nature and characteristics of the SFSC.

The main policy barriers identified for both SFSC and EOSC are related to the reduced level of financial support provided to producers and different operators. While financial assistance programs exist such as Rural Development Programmes (RDPs), GREAT life, and particularly the Common Agricultural Policy which supports farmers in the adoption of the certification and helps them recover associated costs, the level of assistance remains insufficient and often sidelines small and medium scale producers. Moreover, many farmers are either unaware of the existence

of funding opportunities or are unable to access them for internal and external reasons. Therefore, policy intervention is crucial to increase the level of financial support for producers, particularly with the ongoing economic volatility the world is facing. This aligns with studies showcasing the significant financial gap the agricultural sector of Italy is facing, despite being one of the largest agricultural producers among EU 24 countries (EAFRD, 2020b). Furthermore, funding needs to be targeted to ensure its intended purpose, it can be done by pursuing the use of guaranteed instruments which will help those without credit history and collateral needed to access investment, or by exploring specific equity funds. Most importantly, support systems need to be linked with technical support and capacity building to increase awareness, knowledge, and competencies necessary for the success of their operations and the appropriate use of funding.

The presence of barriers to environmental and social outcomes were not prominent, particularly in SFSC, the nature of the supply chain and its multifunctionality provides the background to achieve wide environmental and social benefits. As for EOSC, specific barriers were highlighted that can lead to hindering the intended outcomes from the adoption of sustainability standards, such as the fragmentation of the supply chain among heterogeneous operators and the high number of intermediaries. A high level and efficient coordination tools, such as digital solutions, can mitigate this risk and ensure mutual benefits and intended environmental outcomes, the digitized solutions promoted by the project can therefore help mitigate this barrier.

As for the economic dimension, the main barriers were related to the lack of knowledge about standards and their benefits, as well as the higher costs of certification. Knowledge gaps are often addressed through effective support that can be given by private farm advisors, but many producers are discouraged from relying on them due to their costs. The provision of funds (e.g., EU CAP) to cover these advisory services remains insufficient. These barriers are often hard to address and require complex policy and institutional interventions, particularly for localized modes of food provisioning in SFSC.

The AIAB organic - SFSC

The AIAB organic certification entails several points of strength, such as the improved relationship between producers and consumers, organic builds a relationship of trust with consumers who recur to organic products of superior quality, as well as the environmental benefits from the production system. Organic certification also improves the knowledge of productive processes, as the compliance to different requirements pushes farmers to about different sustainable practices and operations, thus producers gain in depth knowledge not only

of production operations but also awareness of environmental issues. Additionally, organic certification allows producers to sell products at a premium price that is higher from conventional products and allows them to access to significant markets, thus ensuring higher revenues, this also provides incentives for farmers' efforts to engage in these sustainable practices. Additionally, compliance with organic agriculture provides a plethora of environmental benefits arising from the compliance with organic requirements.

Weaknesses related to the adoption of the standard were also identified, such as the high costs corresponding to farm support and representativeness at the trade level, exploring public funding opportunities and subsidy programs is an option to mitigate this weakness, which requires policy intervention to increase their provision (e.g., CAP), or recurring to collaborative framework between different producers to divide costs, such as group certification which can be a viable option for small and medium scale farmers. Policy intervention can also target developing micro-crediting systems to farmers in need.

The SWOT analysis has also highlighted several weaknesses and threats related to climate change awareness and resilience, organic agriculture promotes environmentally friendly practices and by complying to organic standards, farmers are inexplicably providing positive environmental roles even if not declared. Still, awareness raising and knowledge building targeted towards both consumers and producers on climate change mitigation and environmental benefits is crucial. In fact, the greater the awareness of consumers towards environmental benefits, the more likelihood they will support purchasing organic products, and the more awareness that farmers have towards these benefits, the greater the likelihood that they will undertake the conversion process to organic farming. Structural technical assistance could be applied to remove some of these obstacles through providing trainings, knowledge and technical organizational support to farmers or supporting cooperation to improve management systems, these measures would also remove informational asymmetries between different supply chain actors, particularly farmers, which would improve relationships across the supply chain and establish a level-playing field for every actor.

Another threat that was highlighted is related to costs of extension services and education which can discourage actors from reaching out for these services, to address this threat public intervention is critical not only to provide targeted extension services but to also support producers in the costs. The lack of awareness raising of farmers towards the impacts of natural disasters is also perceived as a threat, which requires awareness raising actions that not only build producers' understanding of the issues but allows them to perceive their contributions to

these climatic problems. While national and EU strategies are important to address these issues (e.g., GREAT life), the project can play an important role through the different options defined in the project such as the video pills and training sessions. The threat on non-guaranteed sales, can be considered as moderate since the organic market continues to grow at a fast pace, in addition to the direction of EU countries, including Italy, to promote organic agriculture through its national policies and support strategies.

ISO 22000 - SFSC

Thes SWOT analysis of ISO 22000 highlighted several environmental, economic, and social benefits, such as the improved relationship between producers and consumers arising from meeting customers satisfaction and needs for products with better quality and safety, as well as to upgrading farmers knowledge on regulations and safety measures as the adoption of the certification improves allow them to access training on food safety measures, quality management, documentation, and traceability. These benefits align with studies highlighting the potential of ISO 22000 implementation to induce a wide range of internal and external benefits, including the improvement of product safety, traceability of products, documentation, internal processes and quality management systems, as well as the respect of food safety legislation, improving emergency response, boosting the image in the market and market access (Gonçalves *et al.,* 2020).

In addition to the identified benefits, several weaknesses were perceived from the adoption of the standards, and while these weaknesses are valid, they are either easy to overcome or negligible in the context of adopting ISO 22000 in SFSC. For instance, the weakness of unimproved private-private and/or public private relationships can be easily overcome through the increase of awareness, and the presence of traceability systems required by the ISO which ensures that different operations are recorded, accounted for and compliant to regulations. Similarly, other weaknesses might not represent a problem under the context of SFSC, such as issues of reducing GHG emission and carbon accounting, the use of low environmental impacting material or reducing agro-chemicals. In SFSC, these aspects are naturally promoted as products are coming from agronomically sound systems. As for social weaknesses, the same rationale is applied, the localized mode of food provisioning in SFSC creates a basis for community-supported agriculture, which helps overcome any risk of communication and agreements with local communities. Furthermore, the multifunctional role of SFCS secures the preservation of local habitat and traditions, which helps protect cultural heritage. In fact, a study conducted in Italy suggested that the majority of barriers related to ISO 22000 are related to unfamiliarity of

consumers, costs, and organizational resistance. However, these barriers were taken from the perspective of EOSC actors, and since ISO 22000 is yet to be implemented in SFSC of Italy, thus the presence of these issues is not guaranteed. Based on the above-mentioned rationale and expert opinion from the questionnaire, the identified threats can also be mitigated by the multifunctionality and internal characteristics of SFCS.

GRASP - EOSC

The strengths identified in the SWOT analysis for GRASP include the protection and safety of workers; the main purpose of GRASP is the compliance to good social practices that ensure the respect and wellbeing of workers and eliminate the improper influence of management on workers. These practices include the presence of workers representatives that lobby for workers interest, ensuring the respect of human rights to all employees, freedom of association, fair remuneration, and providing basic social needs to ensure proper quality of life and conditions for all workers. Therefore, wide social benefits are ensured from the adoption of the standard as it helps producers establish a good social management system in its operation and helps them protect their most important resources: its people.

Perceived benefits also include the improvement of B2B and B2C relationships through the compliance and respect of a fair and transparent management system in place that protects all actors within the supply chain. Another important benefit is the direct correlation between GRASP and GLOBAL G.A.P; GRAPS is established to complete the requirements of GLOBAL G.A.P standard with respect to good social practices, thus obtaining the GRASP certification is only possible when producers are certified with GLOBAL G.A.P which sets requirements aimed to ensuring good agricultural practices and food safety. Thus opens the opportunity to achieve several environmental benefits arising from compliance to sound agricultural practices.

As for weaknesses, the “non correlation to product quality” was proposed. However, this establishes a one-dimensional view of quality and correlates it only to one dimension (e.g., environmental or safety) while discarding other aspects that have the same importance. Quality is a multidimensional concept that loses a significant weight if cultural and social dimensions are omitted. Furthermore, social, and cultural dimensions are attributes highly regarded by consumers and play an important part in consumer demand. Regardless, awarding the GRASP certification is only possible when the GLOBAL G.A.P certification is obtained, thus the quality of the product will include social attributes and other quality attributes. Additionally, the lack of “correlation with consumers’ quality of life” was proposed as a weakness, which brings back to

the one-dimensional view of social standards. In fact, improving the livelihood of workers and ensuring adequate social needs for them lead to indirect benefit to consumers and their quality of life. For instance, improving working wages would trickle down to economic benefits that can influence the quality of life of consumers. It is also important to note that the quality of life of consumers can indirectly benefit from knowing that better conditions are ensured through the GRASP certified product. Moreover, GRASP and Global G.A.P are linked, consumers are therefore benefiting from the implementation of sound agricultural practices and having safe and high-quality products.

Finally, the only perceived threat was related to the risk of non-compliance to improving working conditions, while appropriate monitoring and auditing would be able to identify these non-conformities, EU policies can be adopted to ensure compliance, such as linking the provision of funds to the adoption of the certification scheme.

1.3.2 Egypt

Organic EU – EOSC

While the organic sector is continuously growing in Egypt, the organic sector in Egypt remains relatively small compared to other countries, particularly in terms of the number of organic farms and producers adopting the organic certification. The sector is also hindered by specific policy and institutional barriers, such as the lack of financial support and the unbalance in subsidies distribution between conventional and organic actors. Governmental support is mainly focused on subsidies for chemical fertilizers and synthetic pesticides, thus creating unfair competition and hinders motivation to convert to organic certification. A marginalization of the agricultural sector is also noticeable in terms of investment and support, which further harms the development of the organic sector, leaving it deprived of support policies, strategies, and action plans (Boes *et al.,* 2020). The final critical policy barrier is related to the lack of consumer trust in the organic label. Prior to the introduction of the organic agriculture law in 2020, plenty of producers claiming to be organic exploited the absence of control and inspection to falsely sell their products as organic, this has built a gap in trust from consumers towards the certification, even after implementing the law and appropriate monitoring and inspection structure (Organic Egypt, 2021).

In addition to institutional and policy problems, barriers that can hinder economic outcomes in the EOSC were identified, such as the high costs of initial investment during the conversion period

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and complicated paperwork which often discourage producers from converting, in addition to costs of extension services and facilities/tools necessary to adopt the standard. The transition period is seen to absorb much-needed financial resources which is made worse with the fact that initial yield often drops at the beginning (Boes *et al.,* 2020).

To address these issues, policy and institutional intervention are the most crucial elements, national strategies need to be established that aim to increase the production of organic agriculture in the region, which will raise the sector's productivity and export potential. Awareness raising is another crucial component that needs to be ensured to increase trust in organic products, communication on the wide benefits of organic agriculture is necessary, alongside training, knowledge and capacity building towards farmers ensure their compliance to different requirements and therefore rebuild the trust that farmers are complying rather than making false claims.

Economy of Love (EoL) – SFSC

EOL shows several economic and social points of strength, including the improvement of efficiency of production through the promotion of sustainable and efficient operation, as well as the promotion of machinery and tools. The EoL adoption also entails improving relationships between different actors, from the mandatory round tables required by EoL where actors come together on a regular basis to discuss all aspects related to their needs, as well as the traceability and fairness requirements of the EoL all along the supply chain. In fact, EoL has established an ImpacTrace tool that brings full transparency and traceability to both consumers and companies. This tool allows for fair relationships between different supply chain actors, but also represents an additional control layer to different stakeholders by monitoring practices and eliminating risks of fraud. Additionally, the EoL allows the continuous development of producers due to the educational program set by the standard, this program provides continuous training and workshops to certified farmers on different topics including sustainable practices, as well as environmental and social related topics.

Finally, environmental strengths were identified from the adoption of the standard, particularly the provision of high ecological benefits resulting from the different sustainable practices and requirements of the standard. Notably, EoL requires the adoption of biodynamic practices, but also established systems to support sustainable behavior, such as promoting and financially supporting compost making, renewable energy, livestock production and beekeeping.

Alongside benefits, several important weaknesses were identified, starting with the relatively moderate exposure of the standard in Egypt, this is attributed to the fact that EoL is a newly established standard, which explains the lack of exposure compared to other certification. Spreading awareness of the standard is therefore important to ensure that the standard is spread across the country and that consumers are aware of its presence and benefits. EoL is aware of this necessity and has established a strategic plan to farmers already involved into the certification, with plans to onboard 40000 farmers at the end of 2025.

The non-guarantee of sales is another important weakness that was highlighted by the SWOT analysis, as the standard is new, it has a long way to go to reach a level of market exposure that takes it into mainstream status. The standard will also not have the same level of governmental support compared to other certifications and should therefore prioritize finding appropriate actions to mitigate these issues. Awareness-raising is crucial through targeted communication campaigns to promote the standard and its wide range of benefits, establishing meaningful partnerships with different cooperatives, companies and markets is another crucial action to ensure the presence of a market for these products.

The cost of compliance was another weakness highlighted by the analysis, particularly for small and medium-scale producers. To mitigate this risk, farmers can only rely on the financial support systems established by EoL since governmental support is still negligible, the EoL fund and micro-credit support farmers in specific areas of conversion, and farmers can also recur to the carbon credit system that can help them cover the costs of operations. Finally, specific threats were highlighted in the SWOT analysis such as losing insight of good governance along the chain, this issue can be addressed through the impact-Trace system which ensures the transparency between different supply chain actors, awareness raising can also be done to develop the understanding of different supply chain actors. The risk of non-enforcing and monitoring of equality and non-discrimination was also highlighted as a threat, the EoL standard explicitly requires a set of criteria related to these social issues, but it would be beneficial to conduct training and awareness raising interventions on the issues of equality and discrimination, this can go alongside the EoL training program that already discusses these issues. In fact, experts suggest the establishment of a training plan for producers that target technical knowledge, as well as awareness raising towards environmental and social topics. Educational videos would be of great interest as well, an action that EoL had established through long and short videos that address different stakeholders and show them in a simple way successful methodologies and experiences, different aspects of the certification process and the requirements of the standard, this would help farmers develop their competencies and support their decision-making.

Demeter PGS - SFSC

The PGS system is still a new notion in the local Egyptian market. The main objective of PGS is to mitigate the downsides of the third- party process from inherent expenses, paperwork, and the costs to be certified is expensive which discourages the small farmers to get the certification. In general, PGS is based on broad stakeholders' participation where farmers, consumers, organizations, and any relevant actor come together to make joint decisions, support each other in the process of set-up, day-to-day operations, and implementation of an effective and credible system.

Demeter PGS: is the first local certificate in Egypt initiated by Egyptian biodynamic association (EBDA) with the cooperation with the center of organic agriculture in Egypt (COAE). Biodynamic producers around the world have been developing methods to guarantee the biodynamic integrity of their products for many years. Today, what are generally referred to as "third-party certification" systems, have become the dominant means of biodynamic guarantee for local trade. Egyptian producers have accredited third-party biodynamic certification agencies to choose from. To mitigate the expenses and paperwork required to be certified through (third-party certification), several alternative methods to guarantee the biodynamic integrity of products have been developed for small domestic producers, and they are growing rapidly. These alternative programs are now collectively referred to as Participatory Guarantee Systems (PGS) which embodies the active participation of producers and other stakeholders in their biodynamic guaranteed process.

Demeter PGS educate small farmers more about the biodynamic standards that can be later ready for the level of export. Demeter PGS has low production costs, Solidarity between farmers as they participate together in the cross-inspection committee and the sharing of common interests in the production process. The expected outcomes from this system are to encourage farmers in converting their farms to organic/biodynamic, Raising the level of the quality of the local products, foster community values and support the potential for community development through biodynamic agriculture and participatory governance: PGS relies on trust-based relationships and helps establish a sense of community between farmers and consumers, the participation in the collective actions reinforces social inclusions, farmer empowerment and mutual support and contribute to food sovereignty by creating ownerships of production standards and certification among PGS members. The PGS system has a flexible structure and is simpler but there are some weaknesses that need to be avoided to improve the system and can be applied on a large scale in Egypt. The first lacuna is the efficiency not improved in the

processing level as there are no specific standards in the level of PGS that cover the processing side, the part of distribution and logistics is not directly mandatory to decrease the environmental impact. Furthermore, the marketing is not guaranteed especially with the unfair competition between the small and bid producers in the Egyptian market. Demeter PGS has a small geographical area outreached and the nature of this system will lead to phasing out good governance as the members of the peer-review committee come from different backgrounds which is not easy to set up a strong criterion. On the other hand, there is no carbon accounting required in the standard, lack of the other environmental criteria and no aspects related to resilience to climate that must be applied along the chain which make the certificate not to be specified.

Also, there are some threats on PGS for instance, lack of training leading to losing the real insights behind this certification (cooperation between farmers), preventing the spread of this certificate on a large scale and hence couldn't reach consumers easily.

The proposed solutions and recommendations are to start making intensive awareness sessions for the farmers and other stakeholders about the nature of this system and its benefits. This system in Egypt to develop the marketing of the products, the center of organic agriculture in Egypt (COAE) will be the certification body that assure the process.

1.3.3 Greece

Overall, there are no significant institutional or policy barriers that can hinder the adoption of sustainability standards in short food supply chains. In fact, SFCS emerged in Greece against the dominant agri-food regime with alternative ways of producing, distributing, retailing, and buying food. SFSC drift away from the main characteristics of traditional supply chains (e.g., extreme productivity, standardization, and industrial organization) while paying greater attention to other aspects such as social and environmental quality (Petropoulou, 2016; Tsoulfas *et al.,* 2023). The emergence of SFCS in Greece provided farmers the ability to better program the scheduling and quantity of their harvest, to get direct feedback from consumers, and to enjoy the flexibility to sell what they produce in line with seasonality, thus avoiding the impositions of big retailers. Therefore, different models appeared such as face-to-face SFCS, spatial proximity SFCS and spatially extended SFSC (Petropoulou, 2016; Renting *et al.,* 2003)

No significant barriers that might hinder the adoption of sustainability standards were identified for SFCS, except for the lack of institutional support from universities and research centers. The

involvement of research institutions in the development of SFCS is important and aligns with research indicating the necessity to develop competencies within SFCS and to foster the capabilities of its actors (technical, managerial, market, entrepreneurial). (Bayir *et al.,* 2022; EAFRD, 2020a).

Traditional Specialty Guaranteed standard (TSG):

The SWOT analysis of TSG highlighted several points of the strengths related to environmental, social, and economic performance that can help minimize perceived weaknesses and threats. Particularly, TSG provides higher visibility and market access for producers which improve the economic potential of producers. "Losing market access to a more marketed and sustainable certification" has been highlighted as a threat, this comes from the competition present from other known sustainability standards, particularly those under the same scope as TSG (e.g., PGI and PDO). In fact, studies have expressed that PGIs might be absorbing TSGs to some extent since they highly overlap with the only substantial differences being represented by the origin link (Zappalaglio, 2022). The PGI systems are broad and are seen to provide more flexibility in terms of the locality requirement, according to which only one step of the production process must take place in the area of production designated by the specification. This makes registered PGIs claim that the product is traditional in nature, thus making it harder for TSG to play a distinctive function from PGIs. It is also important to note that TSGs are not "origin" labels, but rather emphasize the traditional aspects of production, such as composition and ingredients, a specific recipe, without being necessarily connected to any geographical areas, this contributes

greatly to the ability of PGIs to compete (Zappalaglio, 2022). Furthermore, awareness raising towards TSGs and the understanding of its meaning are also lacking, which hinders its exposure. This has been highlighted by a recent survey conducted by the EU commission stating that consumer awareness towards TSGs is low (14%) and that 40% of surveyed consumers did not see the difference between TSGs, PDO and PGI (Directorate-General for Agriculture and Rural Development, 2022). Addressing these issues requires interventions at the institutional and policy levels, particularly to specify and maintain the integrity and significance of TSG as a sustainability standard, this requires a stricter approach to establish a fixed scope for TSG and create clear distinctions from the PGI and PDO systems, thus ensuring the significance of the standard and creating marketing pathways.

Other identified weaknesses include absence of compulsory training, lack of awareness to climate change, not covering all aspects of climate change, as well the maintaining fair wages for

workers and ensuring equal opportunities. While the standard is not designed for these purposes, these issues can be addressed through awareness raising and adequate training that covers different aspects of compliance, practices, and environmental and social aspects, thus answering to the necessity highlighted by research in relation to developing interventions that facilitate building competencies. Capitalizing on environmental and climate change policies would also mitigate these risks, such as the National Adaptation Strategy to Climate change (NAS), but most importantly education and awareness raising is at the heart of the solution so that SFCS actors obtain the necessary background and knowledge to the standards, as well as other aspects of environmental and social dimensions. Furthermore, the consultancy cost has been identified as a weakness, which can be addressed through relying on public extension, which brings to light the necessity for extension services to adapt and evolve from being anchored to conventional production and marketing approaches. The SWOT analysis has also identified the threat of losing insights of producers by having the short end of the stick and inability to bargain and gain from agreements and relationships, which can be mitigated by fair long-term contracts that empower these producers and ensures them fair conditions, as well as developing competencies of actors on entrepreneurial and market knowledge, to capitalize on market opportunities.

Fairtrade:

Fairtrade provides several benefits as its concept is to empower marginalized producers and those left out of the global trading system by offering them special distribution channels and prices more adequate that the one offered on the free market, propelling them to the goal of getting out from poverty, stagnation, and poor living standards. Overall, fairtrade provides several advantages in the form of bypassing some of the struggles that producers – particularly small-scale – struggle with such as access to markets, low profits from basic production, low competitiveness, or poor working conditions (Fiedoruk, 2021; Moore, 2004). The main aim of fair trade is allowing producers to fetch a fair price for their produce on any market, this is achieved by the concepts of fairtrade premium and fair-trade minimal price.

The latter is set according to the global market price of each category of product. In case the global price is not sufficient to cover the costs of production and give producers a fair profit, the minimal prices come into play and sets the standard that fair trade associated buyers need to offer, these buyers can of course offer higher prices. These two mechanisms ensure that producers sell their product with higher profit than the market average (Fiedoruk, 2021; Moore, 2004). However, fairtrade had its fair share of criticism which the operating body has constantly tried to take into consideration and respond to, which led to the development of the new

standard that defines 10 basic principles of fair trade (WFTO, 2017) that align with sustainable development goals. Among these principles we observe:

Fair Trading Practices: the organization does not maximize profit at the expense of small producers, but instead creates instruments for the trade environment which cares about their well-being and living standards. On the producer side, the organization guarantees the quality and quantity of the product, while on the buying side, it assures that the payment will be on time and in fair amounts. The system also recognizes the disadvantages that Fair Trade suppliers and producers face in cash flow by establishing pre-payments, which are interest free, of at least 50% of contract value in case of handicraft, and 50% of contract value with reasonable interest rates (not higher than rates offered by third parties) in case of food produce. Fair Trade also protects producers and suppliers from experiencing financial losses when the buyers cancel orders. In this situation, buyers are obliged to pay compensation for the work already done by suppliers.

Fair Payment: the core of the Fair-Trade movement is to provide producers with fair and equal payment for their work, suited to their local economic environment. This principle consists of three fundamentals:

- Fair Prices — are “freely negotiated through dialogue between the buyer and the seller and are based on transparent price setting. It includes a fair wage and a fair profit. Fair prices represent an equitable share of the final price to each player in the supply chain.”
- Fair Wages — are “an equitable, freely negotiated and mutually agreed wage, and presumes the payment at least a Local Living Wage.”
- Local Living Wage — “is a remuneration received for a standard working week (no more than 48 hours) by a Worker in a particular place, sufficient to afford a decent standard living for the worker and her or his family. Elements of a decent standard of living include water, housing, education, health care, transport, clothing, and other essential needs, including provision for unexpected events.”

Providing Capacity Building: The commitment of providing producers and workers with the means to develop and expand the business, mainly by increasing skills, production capabilities and reaching new channels of sales and distribution, either Fair Trade or not.

Respect for the Environment: Fair Trade products are created with the use of raw materials, from sustainable, mostly local sources. Renewable energy is used to reduce greenhouse gas emissions,

and producers need to minimize the impact of their waste stream on the local environment. Agricultural commodity production requires organic methods, and the use of pesticides is very limited.

Furthermore, fairtrade promotes collaborative engagement and fair governance. The profits of premiums cannot be spent freely by producers, and are accumulated by producers' organizations, which must decide by democratic means how to invest those additional funds in accordance with fair trade principles (Dragusanu, Giovannucci and Nunn, 2014). They should be used for endeavors like local education, healthcare, or buying new agricultural equipment. The rationale behind this is to maintain a unified body of workers and producers, thus ensuring benefits for all rather than specific members. This also allows funds to be channeled towards meaningful projects for the betterment of the community, rather than specific farms (Fiedoruk, 2021). Other issues arising from fairtrade are the risks of not having enough fairtrade sales, since producers only receive the fairtrade price if fairtrade certified buyers purchase their products. Hence, farmers will have to sell their producers under normal terms if they can't find a fairtrade buyer, which means no premium price or fairtrade premium. Small-scale producers might be very limited in the number of business partners they can sell to, which can hinder their economic wellbeing especially with the difficulties to gain capital, or to access information (Fiedoruk, 2021).

Auditing and licensing fees are other problems that fairtrade producers might face. Like any other certification, these fees are necessary to ensure that auditing takes place and to maintain the integrity of the certification, thus ensuring that fairtrade producers and traders are complying with the standards. However, many producers might not be able to afford these costs and might not have the appropriate resources to get through the certification process. This can discourage producers from adopting the standard, as well as impede the growth of the fairtrade movement. This issue of costs is often mitigated by the presence of cooperatives that share the burden of these fees, but also requires support for small scale producers to join forces and develop strong organizations. Furthermore, FLOCERT applies fee adjustments for cooperatives and organizations that cannot afford to pay their fees and allow payments in installments or to even defer payments depending on the circumstances. Several environmental challenges also arise from fair trade, as it is mainly known as a standard that aims to protect farmers, drive them out of poverty, ensure better economic return and working conditions, which all fall under socio-economic dimensions. Thus, interest in environmental outcomes, while existing, is not mandated by the standard and is given a secondary priority. Which leads to potential lack of competences of farmers, as well as recurring to unsustainable farming practices and approaches that prioritize gains. Fairtrade has recognized this situation and began to address it, particularly through its revised standard in 2017

which specifies the necessity to Respect for the Environment in production operations, it also promotes awareness through specifying the importance of education and continuous knowledge gaining. Finally, fairtrade is tackling the issue of climate change by endorsing organic cultivation and agroecology practices, as well as exploring the concept of climate risk insurance for its small-scale producers. But still, environmental requirements are vague and non-mandatory, thus triggering the need to address this through applying effective policies and appropriate awareness raising of producers.

Organic EU:

The assessment of Organic EU highlighted different economic, environmental, and social strengths, particularly the improved access to markets due to the well-established nature of the organic sector and the continuous growth of demand for organic products. The standard is also seen to guarantee prices for organic products that are higher than conventional counterparts, this price security comes from the big demand for organic markets and the existence of well-developed markets. A plethora of environmental benefits arise from the adoption of the standard and the sustainable practices of this system, as well as health for consumers through intaking high quality and clean products.

In addition to the perceived benefits, several issues were identified starting with the costs of conversion that can be burdensome to converting farmers, particularly small and medium sized ones. Farmers can address this difficulty by recurring to subsidies programs that support organic agriculture, such as the common Agricultural Policy ¨Program (CAP) that establishes support systems to farmers in the agricultural sector, or the Rural Development Programme (RDP) in Greece (European Commission, 2023; 2022). The identified issues included the threat of product prices increase, which can be the result of the increase of production costs, existing markets and demand for products remains intact which can support such increases, and organic products already have premium prices that are higher than conventional products. However, farmers can address costs through the reliance on available digital technologies to maximize the efficiency of their production and operations. To do so, awareness raising and training in different technologies are necessary to develop the knowledge and competences of farmers. Moreover, policy intervention is crucial to promote digital technologies, Greece has begun taking the road toward introducing digitalization in agriculture, and a national strategy for the “digital transformation of Greek agriculture” has been approved by the EU in 2018, in addition to the CAP dedicated in part to support innovation and the adoption of digital means (European Commission, 2023; Michalopoulos, 2018). Other weaknesses highlighted by the SWOT analysis

are related to the absence of direct specification on decreasing environmental impacts through distribution and logistics, as well as the lack of direct specification on improving workers life conditions; these issues can only be addressed through policy intervention, as well as education and training.

An interesting opportunity that emerged from the SWOT analysis is the creation of a fund or a microcredit system with low interest rates to help farmers financially develop within the certification. This addresses an important issue of financing gaps in Greece when it comes to agriculture and difficulties for farmers to secure capital. Overall, there are two key drivers of the demand for finance in Greece, the first being the need for working capital finance, to cover the costs of the preparation and cultivation of the farm, the purchase of inventory items, the payment of rent of land and the procurement of feedstuff for animals. This need is very significant in the Greek agricultural sector, particularly with the increase of agricultural input prices over the years, which obliged farmers to rely more and more on working capital finance to cover input costs. The second key driver is the need for investment finance, forwarded to new machinery, equipment, facilities, and the modernization of operations (EAFRD, 2020).

While the needs for finance are continuously being addressed by EU and national support systems to facilitate their investment opportunities, bank loans remain an important component and the main pathway for farmers to secure money. This pathway entails several difficulties; loans rejection rates for Greek farmers are significantly higher than the EU 24 average, with studies showing up to 50% of applicants being rejected, about 40% of applications for short-term loans are accepted in full, compared to over 75% for the EU 24 (EAFRD, 2020; Brelik, 2020). Additionally, small and medium scale farmers who represent the highest percentage of farmers in Greece (Klonaris, 2021) show discouragement to apply for bank loans, this is linked to several reasons, including restrictive bank policies, the lack of repayment flexibility that is in line with farms' production cycles, the lack of options for grace periods, the perception of farming as a risky sector, the lack of competitiveness in the agriculture finance market, farmers pre-existing debts, farmers lack of collateral (both in value and availability), farmers lack of business and managerial skills, and the age of farmers that disqualifies them from medium and long-term loans (EAFRD, 2020).

Studies have clearly shown the presence of a market imbalance and the need for a financial instrument that can trigger better financial support for agriculture. The reliance on co-financing, funds and subsidies are already established options that support the agricultural sector in Greece, such as the CAP and RDP. But since most of the farmers' interest lies in short-

and medium-term finance (EAFRD, 2020), establishing a micro-financing system can represent a major viable option that can address these pre-existing issues of agriculture finance. Thus, decision makers need to consider the implementation of a risk-sharing microfinance instrument that reduces collateral requirements, reduces loan interest rates, lowers the cost of guarantees, and provides longer grace periods or allows deferred repayment.

1.3.4 France

Overall, there are no notable institutional barriers within the GPP that can hinder the adoption of voluntary sustainability standards or the achievement of intended social, economic, and environmental outcomes, the GPP sector in France is well-established and the adoption of certification is promoted and supported by the French law. The only institutional barrier that was highlighted in the assessment is the lack of interest about certifications in the city of Montpellier, public buyers are interested in quality products that have positive environmental impacts, but they usually don't rely on certifications to fulfill this need and prefer to test the products and look for information about its production process. This entails, according to experts, the need for political intervention from decision-makers to link the perception of quality products and environmental benefits with certifications. This would also require appropriate awareness raising for the population of the importance of certifications and the associated benefits from adopting them and purchasing certified products.

Regarding challenges to achieve environmental, social and economic outcomes, the main barriers are related to the heterogeneity of the supply chain which is made up of different stakeholders, particularly in the fact that most certifications would prioritize one area of the supply chain in its requirements, which can lead to the absence of intended outcomes in other points of supply chain, particularly in storage and distribution, this is also exacerbated by the difficulty to coordinate between producers to generate optimized delivery rounds. Addressing these issues might require institutional interventions that focus on developing and optimizing delivery programs that coordinate between producers, the different supply chain actors, as well as facilitate time and access to consumers. Interventions can also address the adoption of certifications to expand from production and include the other areas of supply chains, which would ensure compliance with requirements and particularly promote larger environmental benefits.

Several economic challenges were also highlighted, related mainly to the financial ability of producers, particularly small-scale ones, and the lack of awareness towards certifications. The

adoption of certification entails several costs, which can be burdensome for small-scale and medium-scale producers, this discourage many of them from adopting these standards (e.g., Agriculture Biologique), this is mainly observed within SFSC, thus producers would not recur on certification to gain consumers trusts, particularly with how consumers don't generally link the perception of quality to these standards. This aligns with studies showcasing GPP objectives are often affected by the behavior and decisions of individuals and group producers, which makes their effective commitment to the certification crucial within the GPP (Guenther et al., 2013; Grandia et al., 2015; Grandia, 2015; Hall et al.,41 2015). In addition to the costs of conversion and certification, lack of knowledge is an important aspect that hinder the implementation of standards, with the plethora of sustainability certifications in place, it can be difficult for producers to identify which one suits their markets, their needs and type of production the most, this lack of knowledge is coupled with the lack of public awareness and recognition of specific standards (e.g., HVE). Thus, communication and awareness raising regarding the chosen certification and its benefits is crucial, to which the project would play a great part in, and policy interventions need to take place to support farmers in their certification process, as well as in any potential losses they might face, to promote the adoption of the certification as a less risky, high return activity.

The barriers to achieving social improvement are mainly related to the lack of insurance policies that cover production losses to natural hazards, and the deterrence of the youth from working in the agricultural sector, these issues cannot be resolved without effective policies and the intervention of decision-makers, in a way that support producers through insurance and set up appropriate laws that ensure fair, safe, and well-remunerated working conditions.

Agriculture Biologique (GPP)

The application of Agriculture Biologique within GPP shows several points of strength such as the reinforcement of biodiversity, the decrease of pollution, covering customer needs in terms of healthy products and improving access to public procurement. On the other hand, several weaknesses were identified, including the high prices of products compared to conventional ones, this can be addressed through interventions in terms of price ceiling that takes into consideration uncertainties and unexpected phenomena such as inflation, diseases outbreaks in crops or band weather events, the sector needs deliver efficiency in order to have an impact on prices, by reducing the gap with non-organic products (particularly by optimizing operations and logistics) . The issues of financial costs for producers were also identified by the SWOT analysis which might discourage producers from partaking in the organic system and deter new producers

from converting and obtaining the certification. Thus, support systems need to be implemented toward the different actors, in addition to the EU support that is expected to increase towards organic agriculture through the Green Deal (Struna, 2022), this support can be in the form of a micro-credit system with low interest rates to facilitate the adoption of organic agriculture and compliance with the standard, especially during the conversion period. This system could also prove useful in covering certain losses that can be caused by unexpected conditions (e.g., climatic events). Additionally, weaknesses were highlighted, such as the lack of role in contributing to the reduction of environmental impacts caused by distribution and logistics, as well as the lack of carbon accounting or clear requirements of GHG emissions. While organic certification entails a wide range of environmental benefits, it does not specify these aspects in its requirements, thus making them non-mandatory for producers. Thus, intervention can take place either through the voluntary engagement of stakeholders, or through policy intervention by establishing laws and regulations that mandate the monitoring and implementation of these points, or through supporting the procurement of the necessary equipment for different actors, such as dispatched storage spaces and shopping points. The voluntary engagement of producers needs to be coupled with appropriate training and awareness raising (which the project can contribute to) to build the knowledge of different actors regarding these topics and to allow them the capabilities to establish measures that are in line with the certification. The final weakness identified by the analysis was the low surfaces of organic farms, which can drive the threat of not fulfilling market demand for organic products, this can be addressed solely by national policy interventions and strategies to drive the adoption of organic certification, but awareness raising and training for producers will play a significant role in promoting the conversion to organic agriculture.

In addition to the perceived weaknesses, several threats were identified, including the lack of environmental monitoring and the provision of essential life conditions for farmers. Overall, organic agriculture induces direct and indirect environmental and social benefits, but the certification does not emphasize environmental monitoring and the provision of essential life conditions in its requirements, thus making them not subject to compliance. Thus, addressing these threats can be through training to allow producers to establish their own specification that align with social dimension and to make them capable of conducting monitoring and follow up for additional social and environmental requirements, policy intervention will also promote these social and environmental outcomes by reinforcing these requirements in a way that aligns with the certification.

Haute Valeur Environnemental (HVE) – GPP

HVE entails several points of strength, such as the guaranteed sales for public markets with reasonable prices of products compared to organic ones. Most importantly, HVE provides several environmental benefits as it recognizes a high level of commitment to protecting the environment through all kinds of agricultural operations. Thus, strengths include the presence of criteria for the protection of biodiversity and the promotion of agro-forestry. Several social points of strength were also highlighted such as the promotion of transparency and traceability for the certified production, as well as the well-developed communication among actors.

Particular weaknesses were also highlighted by the SWOT analysis, such as the exposure and recognition of the certification, which requires developing communication initiatives to promote the visibility of this certification to producers as well as the public, these initiatives needs to target citizen consumers, to explain the benefits of HVE for health, biodiversity and the environment, to farmers, to promote the adoption of the certification, as well as to opinion and political leaders to promote the positive impact of the certification. The financial costs of certification were also identified as a weakness, as the certification provide a multitude of requirements that producers need to comply with, as well as the structure of HVE made up of three levels, with the third level being the only one recognized by the public authority, these entails several costs for the producers. Mitigating this weakness can be through ensuring efficiency within the production to reduce operation costs, or through developing financial support systems to producers (e.g., low-interest micro-credit system) to facilitate their adoption to the certification and to support them during unexpected events.

The geographical scale of the certification is another weakness highlighted by the assessment, this comes from the lack of producers awareness of the certification, but studies have also shown that the exposure of the certification can also be hindered by the current structure of the certification which has two levels (A and B) to assess compliance, studies suggest that the suppression of level B and the revision of level A are the only options that can allow HVE to be fully valorized in public policies, thus achieve a national exposure (Aubert & Poux, 2021). In terms of awareness, communication and marketing strategies are important to ensure that all farmers have access to the certification. In addition to exposure, experts perceive HVE as less engaged politically in territorial food projects than AB and consider it as a weakness, this is understandable as the exposure and geographic range of organic agriculture is stronger than HVE. Thus, policy intervention is crucial to reinforce HVE implementation through regulations. In addition to the weaknesses, several threats were identified in the assessment, such as the risk of not ensuring

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The PRIMA programme is an Art. 185 initiative supported and founded under Horizon 2020, the European Union's Framework Programme for Research and Innovation
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fairness and equitability, and the risk of not ensuring transparency and traceability in the post-production phase. Overall, HVE focuses on environmental protection through specifying requirements on four categories (biodiversity, phytosanitary strategy, Fertilization, and irrigation), thus other aspects are not prioritized. To tackle these threats, awareness raising and training to different stakeholders would prove beneficial to develop their understanding of the importance of these aspects and drive their ability to establish their own monitoring and actions. Still, policy intervention remains the most important approach, by setting up appropriate rules in line with the certification and by establishing monitoring and follow-up procedures. Finally, "not being able to be widely spread among consumers to prefer it over organic" is another threat highlighted through the SWOT analysis, interviewed experts believe that HVE suffers from a lack of recognition from consumers, and that the perception towards the certification remains vague, particularly with lack of clarity when communicating on the certification specifications, which doesn't establish trust between producers and consumers. Thus, consumers will be more driven to obtain products of other well-established certifications, particularly organic agriculture. Therefore, increasing public awareness towards the certification is paramount through appropriate communication and marketing strategies to allow more visibility and improve public perception.

Label Rouge – GPP

The SWOT analysis of Label Rouge highlights several strengths such as guaranteed product quality, securing access to different market channels and a well-established position in public markets, Label Rouge is a national certification that has specific requirements to meet a higher level of quality compared to other similar products in the market. These requirements are validated by the *Institut national de l'origine et de la qualité* (INAO) and approved by a ministerial order published in the Official Journal of the French Republic. Thus, Label Rouge is open to all products, regardless of their geographical origin, and is subject to governmental support which allows it a well-established certification on the national level. Facilitating awareness on climate change mitigation was perceived as an environmental strength from the adoption of Label rouge, whereas ensuring good governance in the production phase and positively affecting the society through its geographic outreach were identified as a social strength. Good governance is positively influenced by control and monitoring mechanisms established by label rouge, which are conducted by independent authorities. Furthermore, Label Rouge is known for its wide national exposure and establishment in the market, according to the INAO website, the Label Rouge system has led to 1.4 billion euros of turnover.

Overall, Label Rouge showcases similar weaknesses to Haute Valeur Environmental (HVE), particularly in terms of financial costs of compliance, the higher prices of products compared to conventional ones, and the inability to track transparency, traceability, and fairness in the post-production phase. Thus, similar recommendations and solutions were identified to mitigate these weaknesses, such as setting up financial support systems (e.g., low-interest micro-credit system) to support the adoption of the certification and to cover unexpected losses, implementing price ceiling for certain products, developing farmers knowledge and capabilities to carry out monitoring, or establishing regulations for traceability, transparency and fairness in the post-production phase that aligns with the Label Rouge certification. Other weaknesses were identified, such as the certification not being at the center of attention in territorial projects (despite is well-established position and high turn-over) and the lack of specification related to circular economy, logistics, distribution, carbon accounting and GHG emissions, awareness raising would drive the different actors to voluntarily engage in promoting sustainable operation which would help mitigate the threats of producers lack of awareness towards environmental-related criteria, but policy intervention in crucial in order to oblige different stakeholders to take these issues into consideration through mandatory specifications and laws. These laws and regulations are also necessary to reinforce the national implementation of Label Rouge in territorial projects.

In addition to the perceived weaknesses, a couple of threats were highlighted by the SWOT analysis, such as the price of products that can exceed consumers purchasing power, this can be addressed through monitoring prices, or engaging into mechanisms that allow the efficiency of production operations which will reduce costs and thus decrease prices of products. Additionally, a good communication strategy to the public is important to fully explain the reasons behind the price increase compared to conventional products, and the direct and indirect benefits that arise from the purchase of the product, thus allowing consumers to understand the cost-benefit ration of the certified products. Ensuring good conditions for workers was also a threat derived from the analysis, which experts suggest the reinforcement of social requirements either through training and awareness raising, or through mandating additional social regulations.

1.3.5 Morocco

Prior to the SWOT analysis, institutional and policy problems that can hinder the implementation of standards or achieving its economic, environmental, or social outcomes were identified. Based on the assessment of 2 experts, there is the issue of administration and structural complexities that lead to unnecessary delays, and gaps in terms of organization and performance of supply chains. To address that, experts emphasize the necessity to reduce the administrative bureaucracy through centralizing all the necessary procedures into a one-stop shop that can handle all the requirements. In addition, experts highlight the potential of policy objectives diverting from business/economy objectives or becoming compromised by them. Thus, ensuring autonomy in policy and decision making is crucial, through independent authorities.

The assessment of external barriers that hinder environmental, social, or economic outcomes from shows people's awareness towards the importance of ecological benefits and resources efficiency has started to develop, but additional interventions are necessary to shift the behavior of organizations, such as necessity for the government to implement strict and disciplinary measures on polluting organizations and companies. A social assessment showcases that the relationship between producers and consumers is strong and well-established, and that the high number of intermediaries in the Moroccan supply chain system might lead to an increase in prices that consumers might not be able to afford, particularly for certified products. Therefore, they suggest the importance of government intervention, but to be limited only on monitoring, reducing the number of intermediaries, and imposing clear and rational pricing systems. Finally, experts believe that the implementation of digital innovation and communication tools is the next step to develop the Moroccan market and supply chains, and that digital communication need be introduced to keep pace with market trends, which requires capacity building for different actors to learn how to use and handle such tools.

PGS: Agroécologie – SFSC:

The SWOT analysis highlighted several points of strengths, starting with "improving relationships built between producers and consumers". In fact, PGS is based on the principle of stakeholder participation, peer-to-peer evaluation, and social control by other members of the community such as farmers, consumers, and other stakeholders such as NGOs, government representatives, consultants, universities, and extension services (Lemeilleur & Sermage, 2020). It adopts intense personal social relationships between stakeholders and relies on their active participation, promotes the collective use of knowledge and peer learning, and embraces the combination of

control and advice in farm inspections, which creates a favorable environment for building capacities that help producers improve the quality and quantity of their products over time (Kaufmann *et al.,* 2023). PGS promotes social exchanges within community members through knowledge sharing, collective farm visits and participation in the guaranteed system, thus creating a sustainable local community network in each territory (Lemeilleur & Sermage, 2020). Thus, credit is given to the PGS system for facilitating social processes that enable inclusion, farmer empowerment and mutual support among farmers, and between farmers and consumers. Another strength arising from Agroécologie is "having reasonable prices for the quality for the product offered", Agroecology allows to produce higher quality products that relies on agroecological practices, which makes them sold at a relatively higher price compared to conventional products. In fact, PGS systems (including agroécologie) can represent a gateway to conversion to other sustainability certifications, notably organic certification. This comes from the fact that PGS significantly reduces the cost of certification and paperwork burden for producers, making it less costly than third party certification, thus it becomes a tool for supporting organic conversion and standard compliance, and ultimately contributing to food security and the sustainability of the agricultural sector (Kaufmann *et al.,* 2023, Chaparro-Africano & Páramo, 2022).

Overall, agroécologie PGS is a system that is adaptable to local realities, is appropriate for local markets and organized smallholder farmers, and can represent a gateway to conversion to other sustainability certifications, notably organic certification. One important manifestation of PGS's social processes is the creation of what is known as self-help groups, which enable combining resources for common goals and allows them a platform for various intervention activities such as collective buying, joint marketing, collective running of seed banks, and the collective buying of external inputs and securing credits. The nature of the PGS system allows producers to mitigate weaknesses identified by the SWOT analysis, particularly the issue of "financial cost not being supported". As PGS relies on collaboration, costs are divided and trickled down between producers, in addition to limiting costs compared to third-party certification schemes. Furthermore, PGS promotes social processes such as self-help groups which enables combining resources and performing different operations in an efficient manner that minimizes costs (Home & Nelson, 2015). Still, policy intervention is required, particularly the establishment of assistance programs for funding with more affordable interest rates, or a microcredit system to support farmers develop within the certification and face any financial burden arising, this will present a massive opportunity not only for the development of PGS producers, but also for the expansion of the system at a wider scale.

Several challenges were also identified by the SWOT analysis, such as the threat of "not reaching the geographical scale relevant to the supply chain system". This can happen for different reasons such as the reluctance of farmers to join the PGS, and while agroécologie has managed to establish itself in the country as a viable scheme and interest towards it is growing over time, increasing member farmers for any PGS system remains a challenge, particularly to convince them to join for future benefits. Another reason can be the competition from other third-party certified products, particularly organic products which are sold on a bigger scale and have a wider reach. To tackle this weakness, policy support and government intervention are crucial to ensure that maintenance and development of PGS in the country, alongside increased advocacy efforts and more involvement in local politics to gain more support. These interventions can be in the form of implementing projects from the local government to further develop PGS all over the country, or by establishing specialized markets, or by lobbying for government level facilitation of agroécologie through public policy that offer preferential treatment for those who produce following ecological principles. It is important to note that these approaches would require some degree of organizational development within the PGS group, this brings the importance of external support structures such as NGOs that have well established structures and mechanisms capable of supporting the PGS development. Exposure to more markets can also be achieved through targeted strategies, such as increasing the number of people in the PGS committee to include members from each market so that the information would flow to each market more effectively.

Other identified issues are the weakness of "desired target customers are not always addressed because the intermediary does not make all the necessary information available" and the threat "harming of traditional relationships and endangerment of cultural heritage". These issues are related to social gaps that can arise within the PGS as it relies heavily on collaboration and social interaction between different stakeholders. It is also important to note that the PGS depends one way or another on the voluntary work of members (Lemeilleur & Sermage, 2020), thus the risk of members not actively participating in the operations of PGS can happen. Moreover, the PGS can suffer from the heterogeneity between different members and actors in terms of knowledge, financial capital, and motivations. These differences can generate social and personal conflicts which hinder the exposure of PGS and the achievement of different social outcomes (Chaparro-Africano & Páramo, 2022). Tackling this problem requires the establishment of organizational structure within the PGS system to set up responsibilities that are agreed upon from the start in a participatory manner. Additionally, it is necessary to strengthen communications through multiple means (e.g., having members of the PGS committee from different markets to spread

information) and multiple channels. To achieve that, a degree of organizational structure needs to exist within the PGS group, which can be internal or external through reliance on stakeholders such as NGOs that have the organizational capacity to conduct such actions.

Finally, the analysis highlighted the threat of "increasing product prices that can lead to losing market access", while PGS products would have a more adequate price compared to third-party certification products, price increase remains a threat. Addressing this issue would exclusively require policy intervention to regulate costs and prices and to set up support systems for farmers, particularly through the introduction of a nationwide control system, or funding schemes to support the costs of operation for PGS members.

Morocco Foodex - EOSC

The SWOT analysis highlighted several points of strengths of Morocco Foodex (MF), starting with the "recognition at national and international level which leads to increased sales and revenues. In fact, Morocco Foodex has a good exposure to different export markets, and currently has five international representations over different production and export zones. Effort of expansion is also in place through Morocco Foodex's export strategic watch, coordination, and promotion, which aim to understand the external environment of export markets to identify international competitiveness. MF is also partaking in targeted promotion and development actions to increase their reach (e.g., participation in international trade fairs, organizations of business missions). Other strengths identified in the SWOT analysis are the "improved B2B and B2C relationship between actors of the chain" and "upstream private-private and/or private public partnerships (coordinating efforts between the public body to guide exporters develop on international markets)", the system provides several structures that work on maintaining and enhancing these relationships and partnerships. To begin with, MF is a public authority serving the private sector and is under the direct supervision of the ministry of agriculture, fisheries, rural development, water and forest, thus public-private interactions are ensured. Additionally, it has a well-established partnership with notable public bodies such as ONSSA that works with them to ensure the conformity of food products and ensure their competitiveness in export markets, both entities have established an agreement with the aim to synergize resources and skills, and to create a center of expertise in the field of health safety and food product compliance. A coordination committee of public and private actors and assisted by legal entities was also established within Morocco Foodex that aims to facilitate consultation and cooperation between different actors and to bring together producers, exporters, and institutional actors in the sector for the purpose of increasing the competitiveness and quality of products. Coupled with the

ongoing promotion and expansion efforts through business missions, these strengths are achieved and maintained.

Moreover, “reducing ecological costs as part of the coordination of export-oriented activities, and “the adherence to specifications on logistics and distributions” were identified as strengths for Morocco Foodex. In fact, the system allows supply chain actors to comply with environmental norms and focuses on specifications and requirements of export markets in processing, manufacturing, packaging, storage, and export of agri-food products. The control of MF ensures that these products comply with the legislative and regulatory requirements applicable to the targeted export market in terms of technical regulations and standards, marketing standards, fair quality, physico-chemical, organoleptic, qualitative classification, and all other specific and general quantitative and qualitative specifications applied in the export markets.

This control is carried out by regional and foreign representations covering the main regions of production, manufacturing, processing and/or packaging and shipping of agricultural and food products for export. Morocco Foodex is also seen to promote good governance, which is the result of the different systems in place that support different actors, either through information provision, knowledge sharing, or technical support to strengthen performances and competitiveness.

Specific weaknesses were identified for the adoption of Morocco Foodex, particularly the lack of training which can be mitigated by establishing adequate training regarding the different specifications and requirements for export, such as establishing annual training plans based on the prerequisites needed to develop knowledge required in international trade. Morocco Foodex has also established systems that develop the knowledge and capabilities of different actors and supports them in every process. Two systems are of great interest to supply chain actors, starting with an operational monitoring system that collects, filters, processes and disseminates useful and relevant information to different supply chain actors and decision-makers in the public and private sector. This monitoring system provides updated knowledge in terms of technical, analytical, and operational regulations, and provides a database with an adapted access system. The second system is CAP’EXPORT, which is a center established in 2017 for accompanying small and medium exporters, the center aims to orient first exporters in the various export procedures, support and assist SMEs in obtaining Morocco Foodex approval, provide information for first exporters on the condition of access to various markets, conduct targeted and practical training on the normative and regulatory requirements demanded by the countries of destination and on quality management systems, and carry out export diagnostic missions.

Other notable weaknesses are the financial costs of compliance, which can be addressed by policy intervention to regulate costs and prices or to provide support mechanisms for actors, particularly small and medium exporters. “Logistics and distribution specification only required.

sometimes for exportation” is another weakness that highly depends on the export market specifications, policy intervention can mitigate this weakness through setting up a standard requirement that identifies prerequisites for logistics and distribution regardless of the standard/export market, this would also help target the threat of “the supply chain not being fully covered by regulations”.

Losing guidance form public bodies for producers aiming to export is one of the main threats identified in the SWOT analysis, this has been addressed by Morocco Foodex by establishing committees of public and private actors in order to harmonize and optimize decision making, but also through implementing information sharing platform for different actors regarding the different requirements and export markets of interest, the platform can also develop to include information sharing between actors.

Finally, a threat of “not being suitable with all aspects of good governance along the chain (fairness, equitability, transparency and traceability)” was identified, while this is partially addressed by Morocco Foodex as it is involved in traceability processes, policy intervention is also necessary in terms of awareness raising towards the importance of good governance, fairness, and transparency.

Saveur du Maroc – SFSC

The Saveurs du Maroc certification's SWOT analysis results reveal important insights into its economic aspect. In terms of strengths, the certification demonstrates reinforced business-to-business (B2B) and business-to-consumer (B2C) relationships, fostering strong connections within the supply chain. This collaboration allows actors to leverage possible synergies and leads to improved efficiency in the main economic activities.

However, the analysis also highlights several weaknesses. Firstly, the certification does not guarantee access to different market channels, which can limit the reach and market opportunities for certified products. Additionally, the financial costs associated with certification and maintenance pose a challenge for producers, as these fees can be burdensome. Moreover,

the high prices of certified products exceed the purchasing potential of a large portion of the population, potentially impacting market demand.

Nevertheless, there are opportunities to capitalize on. One opportunity is to create a fund or a microcredit system with low interest rates, providing financial support to farmers for their development within the certification. This support would enable them to invest in necessary infrastructure, equipment, and technology, fostering economic growth within the certified sector. Another opportunity is to set a threshold for prices that cannot be surpassed, ensuring that certified products remain affordable while upholding the certification's quality standards. Additionally, encouraging and promoting effective partnerships between the public, public-private, and civil society sectors can help access different market channels.

However, it is important to be aware of the threat posed by a potential decrease in sales due to the high environmental impact of products. If the products fail to align with sustainability and environmental standards, they may lose interest among consumers, leading to a decline in sales.

In terms of the environmental aspects of the Saveurs du Maroc certification, the SWOT analysis highlights certain weaknesses. Firstly, the certification does not currently play a role in contributing to the reduction of environmental impacts caused by materials, processes, distribution, and logistics. Additionally, there are no requirements or provisions for carbon accounting or addressing greenhouse gas (GHG) emissions. The certification also lacks specific guidelines for promoting a circular economy. These weaknesses indicate a gap in addressing environmental sustainability within the certification framework.

However, there is an opportunity to introduce environmental specifications and requirements that can be followed throughout the process of quality production. By implementing these measures, the certification can ensure that environmental considerations and sustainability principles are integrated into the production practices. This can lead to improved environmental performance and a positive impact on sustainability outcomes.

It is important to be cautious of the threat of phasing out the environmental dimension through the application of the standard. To maintain the integrity of the certification and its environmental aspects, it is crucial to avoid diluting or compromising environmental requirements. This would ensure that the certification continues to contribute meaningfully to environmental sustainability and encourages responsible practices within the industry.

Turning to the social aspects, the SWOT analysis reveals several strengths of the Saveurs du Maroc certification. Firstly, it promotes quality production from origin under controlled sanitary conditions, ensuring that consumers receive products of high quality and safety standards. The certification also provides claims on how to protect cultural and natural heritage, preserving these valuable aspects for future generations. Additionally, it contributes to improved companies' performance and employment opportunities, fostering economic growth and stability. Moreover, the certification focuses on enhancing the rights and benefits of workers and improving labor conditions, promoting social well-being.

However, there is a threat of a decrease in quality appreciation due to the high environmental impact. If the environmental sustainability aspect is not adequately addressed, it may impact the overall quality perception of the certified products. Consumers are increasingly conscious of environmental issues, and failure to address these concerns could lead to a decline in the perceived quality and desirability of the certification.

In conclusion, the SWOT analysis emphasizes the weaknesses, opportunities, and threats related to the environmental and social aspects of the Saveurs du Maroc certification. By addressing the weaknesses and seizing the opportunities, the certification can enhance its environmental sustainability, integrate responsible practices, and contribute to social well-being while mitigating potential threats.

1.4 Conclusion:

In conclusion, the document "Proposition of Guidelines for Strategies on Suitable Sustainability Standards" provides valuable insights into the optimization of voluntary sustainability standards (VSS) within the context of Mediterranean fruit and vegetable supply chains. The report emphasizes the importance of adapting and implementing VSS to address economic, social, and environmental challenges while considering the diverse stakeholders involved.

The document highlights the need for comprehensive assessments, such as the SWOT analysis, to identify the strengths, weaknesses, opportunities, and threats associated with each sustainability standard. By capitalizing on strengths and opportunities and mitigating weaknesses and threats, the report aims to propose recommendations for the optimal implementation of VSS in each partner country and relevant supply chain.

The methodology section outlines the selection of fifteen standards across the partner countries, with a focus on short food supply chains and export-oriented supply chains. The survey conducted helps identify institutional, policy, and implementation obstacles hindering the growth of selected standards, allowing for targeted interventions and actions to overcome these barriers. The findings section provides specific insights into the selected VSS under short food supply chains in Italy. It highlights the importance of increasing awareness and promoting the standards among stakeholders, including through government communication strategies and project-supported initiatives such as training courses and digital promotion.

Overall, the document emphasizes the significance of context-specific optimization of VSS to ensure their effective implementation and desired sustainability outcomes. By considering the unique characteristics, constraints, and opportunities within each country and supply chain, the proposed guidelines aim to enhance value creation, distribution, and sustainability throughout the Mediterranean fruit and vegetable supply chains.

It is important to note that the document is part of the MED-LINKS project, supported by the PRIMA program of the European Union, which aligns with the Horizon 2020 framework for research and innovation. The authors and consortium take full responsibility for the content and emphasize that the document's information should not replace consultation with legal experts or applicable legal sources.

Overall, the "Proposition of Guidelines for Strategies on Suitable Sustainability Standards" serves as a valuable resource for policymakers, researchers, and stakeholders involved in the agrofood supply chain. By promoting the adoption and optimization of sustainability standards, the document contributes to the goal of achieving fair prices for consumers, reasonable profit shares for farmers, and sustainable practices within the Mediterranean fruit and vegetable supply chains.

PART 2 – TRAINING CONTENT FROM WP2

This report contributes to the presentation of training content in modules for deliverables 2.1, 2.2, and 2.3. Training content will be designed based on the research questions, data elaboration and final recommendation included in the three deliverables in three levels of basic, intermediate, and advanced modules. Grouped in 1 Training Package as folloSws:

TP2: VOLUNTARY SUSTAINABILITY STANDARDS IMPLEMENTATION
Basic Modules
→ TM 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types,
→ TM 2.2: VSS and Sustainable Development Goals (SDGs),
Intermediate modules
→ TM 2.3: VSS for smallholders in Short-Supply Chains and Export-Oriented supply chains,
Advanced module
→ TM 2.4: VSS Implementation: benefits and challenges,

Each module is articulated in following sections:
1. An **introduction** and the **learning goals** of the module;
2. **learning units** dealing with the specific topics of interest;
3. A **self-assessment test**;
4. A **glossary** of the most relevant abbreviations or definitions.

The contents of each module are described in detail in next sections of this report, and they have been designed to deployed in different ways. A first possible implementation would be as e-learning courses of around half an hour each. In fact, the modules are suitable to be distributed on any web-based electronic educational platform that, when implementing international standards and certifications will allow for their widest dissemination among stakeholders.
Specifically, the training modules will be published on the **MED-LINKS online platform** available at: https://www.med-links-platform.eu
As a second option, the training modules provide a valuable knowledge base to be shared with stakeholders also as printed documents during both online and live events (webinars, fairs, master courses, …).

1.5 Training Module 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types,

In this module, we focus on defining Voluntary Sustainability Standards (VSS) and explore the different types of standards, which vary for different reasons (ANNEXE 1).

The module presents VSS in three parts. We start with defining VSS, then talk about the benefits, and concludes talking about the different types of VSS.

The module concludes with a self-assessment test to ensure understanding of the key concepts, followed by a glossary of terms for further clarification.

1.6 Training Module 2.2: VSS and Sustainable Development Goals (SDGs),

This training module aims to provide participants with a comprehensive understanding of Sustainable Development Goals (SDGs) and how VSS can be used to achieve them (ANNEXE 2).

Participants will gain insights into:

- the concept of sustainability,
- the Sustainable Development Goals definitions,
- how can voluntary sustainability standards be used as a tool to achieve various sustainability development goals.

The module includes a self-assessment test to ensure participants can evaluate their understanding of the material provided. Additionally, a glossary is provided to clarify technical terms and enhance comprehension.

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1.7 Training Module 2.3: VSS for smallholders in Short-Supply Chains and Export-Oriented supply chains

The main goal of this module is to explore the diverse types of Voluntary Sustainability Standards (VSS) and their applications in Short Food Supply Chains and Export-Oriented Supply Chains, using concrete examples such as the Demeter Participatory Guarantee System (PGS), the Economy of Love (EoL), and Organic EU (ANNEXE 3).

The Module highlights the following contents:

- understanding the role of VSS in transforming agriculture globally,
- exploring three prominent frameworks:
  - ✓ DEMETER PGS, which emphasizes participatory and biodynamic certification systems;
  - ✓ the Economy of Love framework, which centers on fostering short food supply chains;
  - ✓ the Organic EU certification, tailored for export-oriented markets.

The module concludes with self-assessment tests to ensure understanding and application of the concepts presented. A glossary is also included to clarify technical terms and enhance comprehension.

1.8 Training Module 2.4: VSS Implementation: benefits and challenges

This module focuses on the implementation of (VSS), highlighting their benefits, such as improving sustainability practices, increasing market opportunities, and fostering community engagement. It also addresses challenges like financial constraints, knowledge gaps, and coordination issues, providing strategies to overcome them effectively (ANNEXE 4).

This module addresses:

- Implementing Voluntary Sustainability Standards in Agriculture,
- Addressing Environmental and Social Challenges with VSS,
- Overcoming Challenges in VSS Implementation,
- Fostering Sustainable Supply Chains,
- Continuous Improvement and Impact Measurement,
- The Path to Sustainable Agriculture,

- Addressing Environmental Challenges through VSS,
- Addressing Social Challenges through VSS,
- Overcoming Challenges in VSS Implementation,
- Collaborative Efforts for Sustainable Agriculture,
- The Path Forward: Embracing Sustainable Agriculture.

The module concludes with a **self-assessment test** designed to reinforce the key concepts and ensure participants can apply their learning effectively. Additionally, a **glossary** is provided to clarify technical terms and enhance understanding.

1.9 Contribution to Sustainable Development Goals (SDGs)

Deliverable D2.3 "Report on targeted VSS and guidelines for implementation" aligns with several SDGs, addressing sustainability through voluntary standards and guidelines for supply chain optimization. Below is a detailed breakdown of how the deliverable contributes to specific SDGs:

SDG 1: End poverty in all its forms everywhere

By emphasizing the identification, implementation, and training on VSS, this deliverable promotes fair economic practices and equitable value distribution across supply chains. These efforts empower small-scale producers and vulnerable stakeholders in the Mediterranean region, enhancing their market opportunities, improving income, and building resilience through certified sustainable practices and training modules tailored to their needs.

SDG 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

The deliverable supports sustainable agriculture through proposed VSS guidelines and training content that prioritize environmentally friendly farming practices. This includes reducing harmful inputs like pesticides and fertilizers, improving yield quality, and fostering healthier food production systems. Together, these efforts contribute to food security, better nutrition, and sustainable agricultural practices in Mediterranean supply chains.

SDG 8: Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all

The deliverable facilitates the development of sustainable and inclusive supply chains by enhancing business models, improving market access, and promoting ethical labor practices. Through the adoption and training on VSS, it emphasizes decent working conditions, fair wages, and the prohibition of

exploitative practices such as child labor. This approach ensures that economic growth aligns with social equity and sustainability.

SDG 12: Ensure sustainable consumption and production patterns

By optimizing resource use and minimizing waste, the deliverable's guidelines and training modules promote responsible consumption and production. VSS implementation focuses on reducing resource usage (e.g., water, pesticides) and enhancing transparency, enabling consumers to make informed choices about sustainably produced goods, thereby reducing the environmental impact of production and consumption.

SDG 13: Take urgent action to combat climate change and its impacts

The deliverable addresses climate change by incorporating guidelines and training that promote agricultural practices minimizing environmental footprints. Strategies include reducing carbon emissions, adopting low-carbon practices, using water efficiently, and avoiding deforestation. By encouraging climate-resilient farming methods and environmentally sustainable production, this deliverable contributes to mitigating climate change impacts.

SDG 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

The deliverable fosters collaboration among diverse stakeholders—including public institutions, private entities, local communities, and Mediterranean countries—to implement sustainability standards. This partnership-based approach emphasizes knowledge sharing, resource pooling, and the creation of a unified framework for VSS implementation, enabling stakeholders to align their efforts and achieve sustainable agricultural development. Training modules further facilitate a shared understanding and coordinated action among smallholders, policymakers, and international organizations.

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ANNEXES

ANNEXE 1.
Training Module 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types.

MED-LINKS

Data-enabled Business Models and Market Linkages Enhancing Value Creation and Distribution in Mediterranean Fruit and Vegetable Supply Chains

MED-LINKS TRAINING CONTENTS

Training Package 2

Voluntary Sustainability Standards Implementation

Voluntary Sustainability Standards Implementation
Executive summary

BASIC MODULES

→ Training Module 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types

→ Training Module 2.2: VSS and Sustainable Development Goals (SDGs)

INTERMEDIATE MODULE

→ Training Module 2.3: VSS for smallholders in Short-Supply Chains and Export-Oriented supply chains

ADVANCED MODULE

→ Training Module 2.4: VSS Implementation: benefits and challenges

MODULE 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types

Voluntary Sustainability Standards Implementation
Module 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types

Introductive pill

1. Definitions
2. What are the benefits of VSS ?
3. Different types of VSS

1. Definition

The United Nations forum described VSS as:

"Standards specifying requirements that producers, traders, manufacturers, retailers or service providers may be asked to meet, in relation to a wide range of sustainability metrics, including respect for basic human rights, worker health and safety, environmental impacts of production, community relations, land use planning and others"

Image adapted from: https://freesvg.org/two-way-sign

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Module 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types

Why are they **voluntary** ?

Standards are labelled as voluntary because there isn't an actual rule forcing farmers and actors of the supply chain to implement these standards

VSS are sometimes also **referred to as**…

- Sustainability standards
- Ecolabels
- Certification schemes
- Eco-certification
- Voluntary market-based certification programs

2. What are the benefits of VSS ?

VSS seek to address market failures, such as :

The asymmetry of information existing between producers and consumers about the sustainability of the production process, giving credibility and adding value

Facilitating international trading framework between northern and southern countries

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Module 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types

According to various researches, VSS are linked to :

- Value addition
- Increased crop productivity
- Long term contracts
- Permanent workers
- Diversification of market channels
- Livelihood security

3. Different types of VSS

VSS can vary on a great number of characteristics, such as :

- Nature (practice or performance based)
- Commodity focus
- Standard criteria (minimum criteria vs. best practice)
- Audit methodologies
- Consumer market

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VSS can focus on one or multiple aspects of sustainability : economic, social and environmental

According to ISEAL credibility principles, integrating the following principles increase the likelihood that a sustainability standard will achieve the intended positive impacts on a three dimensional level :

- Improvement
- Relevance
- Rigour
- Engagement
- Transparency
- Accessibility
- Truthfulness
- Efficiency

VSS can also differ in their ownership, which can be :

- Single organizations
- Multi-stakeholders
- NGOs
- Governmental bodies
- Non-competitive organizations

It's important to notice that depending on the ownership…

- The VSS can be **private or public**
- The scope of VSS can be at the **national or international** level

MODULE 2.1
Self-assessment test

1. What does the term Voluntary Sustainability Standards (VSS) refer to?

A. Legally binding rules for sustainable production

B. Standards specifying sustainability requirements for producers and supply chain actors

C. A list of government-imposed regulations on agricultural trade

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Self-assessment
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2. Why are VSS considered voluntary?

A. They are optional and not enforced by law

B. They are only applicable to certain industries

C. They are mandatory in international trade agreements

3. What market failure do VSS address?

A. Lack of technology in agriculture

B. Asymmetry of information between producers and consumers about sustainability

C. High costs of production

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Self-assessment
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Correct answers:

1. B
2. A
3. B

MODULE 2.1
Glossary

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Module 2.1: Understanding Voluntary Sustainability Standards (VSS): Definition and Types
Glossary
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Glossary

- **VSS – Voluntary Sustainability Standards**
  Standards specifying requirements related to sustainability metrics for producers, traders, and other supply chain actors.
- **ISEAL – International Social and Environmental Accreditation and Labelling Alliance**
  A global membership organization that establishes credibility principles for sustainability standards.
- **Global Value Chains (GVCs) –**
  International trade networks where value is added at each stage of production across different countries.
- **Ecolabels –**
  Labels certifying that products meet specific environmental or sustainability criteria.
- **Sustainability Dimensions –**
  Economic, social, and environmental aspects that VSS aim to address for holistic positive impact.

This is the end of our introductory lesson, deeper insights about voluntary sustainability standards will be provided in further lessons.

This video pill has been created by

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within the framework of the project MED-LINKS.

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ANNEXE 2.
Training Module 2.2:
VSS and Sustainable Development Goals (SDGs).

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TRAINING MODULE 2.2:
VSS and Sustainable Development Goals (SDGs)

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Voluntary Sustainability Standards Implementation
Module 2.2: VSS and Sustainable Development Goals (SDGs)

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1. Definition

United Nations

The United Nations forum described Sustainability as:

"Meeting the needs of the present without compromising the ability of future generations to meet their own need "

2. Context

- 140 developing countries in the world
- Increasing threat of climate change

➢ Need to ensure that the development of today does not negatively affect future generations

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3. Sustainable Development Goals (SDGs)

- Formulated in 2015 by the United Nation General Assembly
- Part of the 2030 Agenda for Sustainable Development
- Economic, Social, and Environmental dimensions

SUSTAINABLE DEVELOPMENT GOALS

Number	Goal	Description
1	No Poverty	Ending poverty in all its forms everywhere
2	Zero Hunger	Ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture
3	Good Health and Well-Being	Ensuring healthy lives and promoting well-being for all at all ages
4	Quality Education	Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all
5	Gender Equality	Achieving gender equality and empowering all women and girls
6	Clean Water and Sanitation	Ensuring availability and sustainable management of water and sanitation for all
7	Affordable and Clean Energy	Ensuring access to affordable, reliable, sustainable and modern energy for all
8	Decent Work and Economic Growth	Promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9	Industry, Innovation, and Infrastructure	Building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation
10	Reduced Inequalities	Reducing inequality within and among countries
11	Sustainable Cities and Communities	Making cities and human settlements inclusive, safe, resilient, and sustainable
12	Responsible Consumption and Production	Ensuring sustainable consumption and production patterns
13	Climate Action	Taking urgent action to combat climate change and its impacts
14	Life below Water	Conserving and sustainably using the oceans, seas, and marine resources for sustainable development
15	Life on Land	Protecting, restoring, and promoting sustainable use of terrestrial ecosystems, sustainably managing forests, combatting desertification, and halting and reversing land degradation, and halting biodiversity loss
16	Peace, Justice, and Strong Institutions	Promoting peaceful and inclusive societies for sustainable development, providing access to justice for all, and building effective, accountable and inclusive institutions at all levels
17	Partnerships for the Goals	Strengthening the means of implementation and revitalizing the global partnership for sustainable development

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Voluntary Sustainability Standards Implementation

Module 2.2: VSS and Sustainable Development Goals (SDGs)

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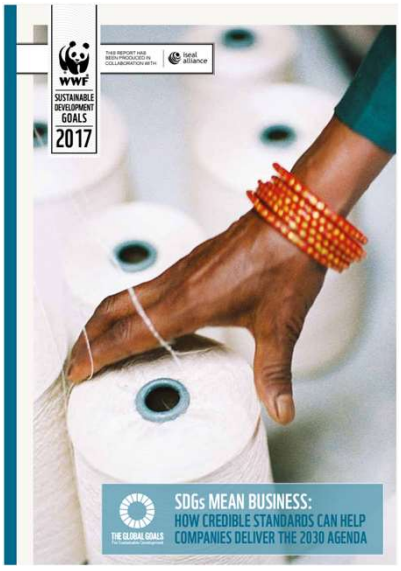
4. How can Voluntary Sustainability Standards can be used to achieve Sustainable Development Goals (SDGs)?

- International Trade Center (ITC) Standard Map
- Overlapping objectives between VSS and SDGs
- Promoting trade, granting access to international markets, providing diversification of opportunities and supporting knowledge and technology transfer.



MODULE 2.2
Self-assessment test

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Module 2.2: VSS and Sustainable Development Goals (SDGs)

Self-assessment

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1. What is the definition of sustainability, as described by the United Nations Forum?

a) Ensuring current resources are used fully without any conservation.
b) Meeting the needs of the present without compromising future generations' ability to meet their needs.
c) Promoting development only for wealthy nations.
d) Preserving only environmental aspects while ignoring social and economic factors.

2. Which of the following is NOT part of the Sustainable Development Goals (SDGs)?

a) Quality Education
b) Affordable and Clean Energy
c) Military Expansion
d) Climate Action

3. How do Voluntary Sustainability Standards (VSS) contribute to achieving SDGs?

a) By focusing only on environmental aspects.
b) By promoting trade, granting access to international markets, and supporting knowledge and technology transfer.
c) By disregarding global collaboration and partnerships.
d) By mandating equal policies for all countries without considering context.

Correct Answers

1. **B)**) Meeting the needs of the present without compromising future generations' ability to meet their needs
2. **C)** Military Expansion
3. **B)** By promoting trade, granting access to international markets, and supporting knowledge and technology transfer

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ANNEXE 3.
Training Module 2.3:
VSS for smallholders in Short-Supply Chains and Export-Oriented supply chains.

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TRAINING MODULE 2.3: VSS for smallholders in Short-Supply Chains and Export-Oriented Supply Chains

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Voluntary Sustainability Standards Implementation

Module 2.3: VSS for smallholders in Short-Supply Chains and Export-Oriented Supply Chains

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Introduction

Voluntary Sustainability Standards (VSS) play a crucial role in promoting sustainable practices within the global agricultural sector. These standards, developed by international organizations, certification bodies, and industry associations, aim to ensure that agricultural operations meet specific environmental, social, and economic criteria. By aligning farming practices with VSS, nations worldwide can drive positive change, protect natural resources, support local communities, and enhance the long-term viability of their agricultural industries. This training material explores the significance of VSS, key frameworks, and practical steps for implementing sustainable agriculture. Through a comprehensive understanding of VSS, participants will be equipped to contribute to a more sustainable and resilient agricultural future.

Learning goals

This module delves into the application of Voluntary Sustainability Standards (VSS) within the agricultural sector globally. It aims to equip participants with the knowledge and tools needed to implement sustainable farming practices that address diverse environmental and social challenges.

By exploring three key VSS frameworks—**DEMETER PGS, EOL** as a Short Food Supply Chain, and Organic EU as an Export-Oriented Supply Chain—this module provides a comprehensive understanding of how to integrate sustainability principles into agricultural operations worldwide.

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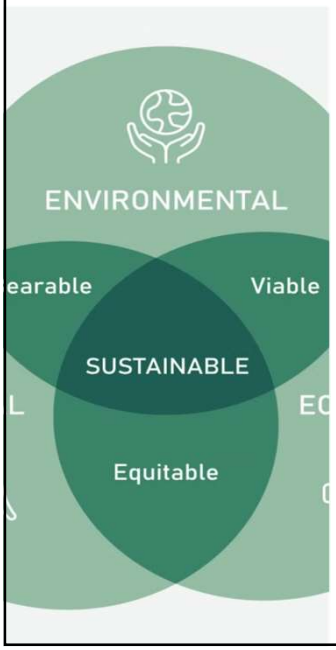

Definition

Voluntary Sustainability Standards (VSS) are a set of guidelines and criteria developed by various stakeholders to promote sustainable practices across different industries, including agriculture. These standards are voluntary in nature, but they play a vital role in driving positive change and addressing environmental, social, and economic challenges.

Purpose

The primary purpose of VSS is to ensure that agricultural operations meet specific sustainability requirements, such as reducing resource consumption, minimizing pollution, preserving biodiversity, and promoting fair labor practices. By adhering to these standards, farmers and producers can demonstrate their commitment to sustainability and access premium markets that value sustainable products.

Stakeholders

VSS are developed through a collaborative effort involving various stakeholders, including international organizations, industry associations, non-governmental organizations (NGOs), and certification bodies. This multi-stakeholder approach ensures that the standards address the diverse needs and concerns of the agricultural sector.

Voluntary Sustainability Standards (VSS) frameworks play an essential role globally in promoting sustainable practices across the agricultural sector. These frameworks, developed by various entities such as international organizations, certification bodies, NGOs, and governments, aim to uphold environmental, social, and economic criteria.

Demeter PGS

Focuses on participatory guarantee systems promoting organic and biodynamic farming through stakeholder collaboration, fostering trust and transparency.

EOL as Short Food Supply Chain

Promotes equitable agricultural systems by encouraging local production and consumption, fair trade, and community engagement.

Organic EU as Export Oriented Supply Chain

Ensures compliance with organic standards for accessing international markets, highlighting sustainable production practices.

These frameworks aim to address sustainability challenges worldwide, fostering connections between producers, consumers, and communities.

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More details about DEMETER PGS: Promoting Organic Farming and Community Engagement

Organic Production

DEMETER PGS focuses on promoting organic farming practices, including the prohibition of synthetic pesticides, fertilizers, and genetically modified organisms. Farmers must adhere to strict criteria to ensure the ecological integrity of their operations.

Social Responsibility

DEMETER PGS takes a holistic approach, addressing social aspects of sustainability. It encourages fair labor practices, community engagement, and equitable distribution of benefits among farmers, workers, and consumers.

1

2

3

Biodiversity Conservation

The DEMETER PGS framework emphasizes the importance of biodiversity conservation, requiring farmers to implement measures that protect and enhance the natural habitats and ecosystems within their farms.

EOL as Short Food Supply Chain: Promoting Local, Sustainable Agriculture

Local Sourcing

The EOL framework focuses on promoting short food supply chains (SFSC), where agricultural products are sourced and consumed locally. This approach reduces the environmental impact of transportation and fosters stronger connections between producers and consumers.

Fair Trade Practices

EOL emphasizes fair trade principles, ensuring that farmers receive equitable compensation for their products and that the economic benefits are distributed fairly throughout the supply chain. This supports the livelihoods of local communities.

Community Engagement

The EOL framework encourages community engagement and collaboration, involving farmers, consumers, and other stakeholders in the development of sustainable agricultural systems. This promotes social cohesion and shared responsibility for the local food system.

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Voluntary Sustainability Standards Implementation

Module 2.3: VSS for smallholders in Short-Supply Chains and Export-Oriented Supply Chains

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Implementing VSS in the agricultural sector

1

Assess Current Practices

Evaluate agricultural operations for resource management, environmental impact, and economic viability. This assessment identifies areas for improvement and determines alignment with a VSS framework.

2

Develop a Sustainability Plan

Create an action plan detailing goals, strategies, and timelines. Involve key stakeholders, allocate resources, and establish mechanisms for monitoring progress and ensuring compliance.

3

Seek Certification

Once practices align with VSS requirements, apply for certification from a recognized body. This process includes audits, compliance reviews, and validation, ensuring credibility and external recognition of sustainability efforts.

Methodology: Assessing Sustainability Standards

Standard Selection

Fifteen sustainability standards were selected across five partner countries, focusing on short food supply chains (SFSC) and export-oriented supply chains (EOSC). The selection was based on a set of criteria to ensure the relevance and impact of the standards within each context.

Institutional and Policy Barriers

A survey was conducted to identify the current obstacles hindering the growth and adoption of the selected standards. The survey assessed institutional and policy barriers, as well as specific implementation challenges for each standard.

SWOT Analysis

Building on the previous task, a SWOT analysis was performed for each sustainability standard to comprehensively assess its strengths, weaknesses, opportunities, and threats. This analysis informed the development of optimization strategies and recommendations.

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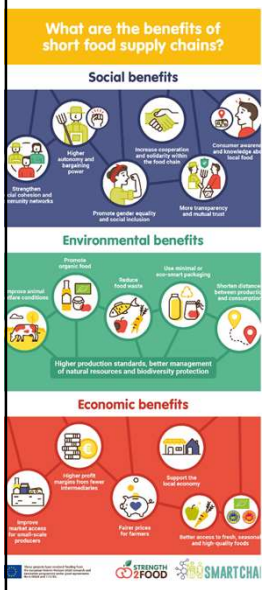

Optimizing Sustainability Standards in Short Food Supply Chains

Addressing Awareness Gaps

A key barrier identified in short food supply chains was the lack of awareness regarding the existence and benefits of sustainability certifications. Addressing this through government communication strategies, training, and digital promotion can help increase the adoption and impact of these standards.

Overcoming Financial Constraints

Limited financial support and high certification costs were found to hinder the adoption of sustainability standards, particularly for small and medium-scale producers. Exploring public funding opportunities, collaborative frameworks, and microcredit systems can help overcome these financial barriers.

Leveraging Local Characteristics

The multifunctional nature of short food supply chains provides a strong foundation for achieving environmental and social benefits. However, ensuring the compatibility of specific standards with the local context is crucial to maximize their impact and avoid potential risks.

Optimizing Sustainability Standards in Export-Oriented Supply Chains

Coordinating Heterogeneous Actors

Export-oriented supply chains often involve a high number of heterogeneous actors, which can lead to fragmentation and hinder the intended sustainability outcomes. Developing efficient coordination tools, such as digital solutions, can help mitigate these challenges and ensure mutual benefits.

Addressing Knowledge Gaps

Lack of knowledge about sustainability standards and their benefits was identified as a key barrier in export-oriented supply chains. Providing targeted training, capacity building, and awareness-raising activities can help producers and other stakeholders understand the value of these standards.

Enhancing Environmental Outcomes

While export-oriented supply chains can benefit from the adoption of sustainability standards, specific barriers related to environmental impacts, such as distribution and logistics, were highlighted. Addressing these gaps through policy interventions and stakeholder engagement can help improve the environmental performance of these supply chains.

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Module 2.3: VSS for smallholders in Short-Supply Chains and Export-Oriented Supply Chains

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MODULE 2.3
Self-assessment test

1. What is the primary focus of the Demeter Participatory Guarantee System (PGS)?

A) Ensuring compliance with international trade regulations.
B) Promoting organic farming, community engagement, and biodiversity conservation.
C) Emphasizing high technology in export-oriented supply chains.
D) Facilitating logistics and supply chain management.

2. Which challenge is addressed by leveraging local characteristics in short food supply chains?

A) Ensuring compatibility with local environmental and social contexts.
B) Increasing the global reach of agricultural products.
C) Reducing costs associated with certification.
D) Promoting technology integration in agriculture.

3. What role does targeted training play in addressing knowledge gaps in export-oriented supply chains?

A) Reducing costs associated with transportation.
B) Educating stakeholders about the value and benefits of sustainability standards.
C) Ensuring market dominance of export-oriented products.
D) Simplifying logistics for large-scale export.

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Module 2.3: VSS for smallholders in Short-Supply Chains and Export-Oriented Supply Chains

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Correct Answers

1. **B)** Promoting organic farming, community engagement, and biodiversity conservation
2. **A)** Ensuring compatibility with local environmental and social contexts
3. **B)** Educating stakeholders about the value and benefits of sustainability standards

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ANNEXE 4.
Training Module 2.4:
VSS Implementation: benefits and challenges.

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TRAINING MODULE 2.4:
VSS Implementation: benefits and challenges

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Module 2.4: VSS Implementation: benefits and challenges

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Implementing Voluntary Sustainability Standards in Agriculture

Demeter PGS

Demeter PGS is a participatory guarantee system that focuses on promoting organic and biodynamic agriculture. It involves the active participation of farmers, consumers, and other stakeholders in the certification process, fostering transparency and trust within the supply chain.

EOL as SFSC

EOL, or the Economy of Love, is a voluntary standard that emphasizes short food supply chains (SFSC) and local production. It aims to create a fair and sustainable agricultural economy by establishing direct relationships between farmers and consumers, promoting organic practices and community engagement.

Organic EU as EOSC

Organic EU certification is designed for export-oriented supply chains (EOSC), ensuring that agricultural products meet the strict organic standards set by the European Union. This certification allows farmers to access international markets that value sustainable and organic production methods.

Addressing Environmental and Social Challenges with VSS

Environmental Benefits

VSS frameworks like Demeter PGS, EOL, and Organic EU promote sustainable farming practices that reduce resource consumption, minimize pollution, and preserve biodiversity. These standards encourage the use of organic methods, water conservation, and ecosystem protection.

Social Impacts

VSS implementation can have positive social impacts, such as improving farmer livelihoods, ensuring fair labor practices, and fostering community engagement. These standards prioritize social responsibility and aim to create more equitable and inclusive agricultural supply chains.

Economic Resilience

By adopting VSS, farmers can enhance the economic viability of their operations, gain access to premium markets, and improve their overall competitiveness. VSS certification can lead to increased profitability and long-term sustainability for agricultural businesses.

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Module 2.4: VSS Implementation: benefits and challenges

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Overcoming Challenges in VSS Implementation

Capacity Building

Providing comprehensive training and technical support to farmers is crucial for successful VSS implementation. This includes educating them on sustainable practices, helping them access necessary resources, and building their capacity to meet certification requirements.

Financial Assistance

Governments, NGOs, and private sector actors can offer financial support and incentives to help farmers overcome the initial costs associated with VSS adoption. This can include grants, subsidies, and access to affordable inputs to facilitate the transition to sustainable agriculture.

Market Development

Strengthening market linkages and creating demand for VSS-certified products is essential. Partnerships with retailers, exporters, and local consumers can help expand market opportunities for farmers, ensuring the long-term viability of sustainable agricultural practices.

Policy Alignment

Aligning national agricultural strategies and policies with the goals of VSS can create an enabling environment for farmers. Governments can provide regulatory frameworks, incentives, and support mechanisms to encourage the widespread adoption of sustainable practices.

Fostering Sustainable Supply Chains

Farmer Engagement

Actively engaging and empowering farmers is crucial for the successful implementation of VSS. Providing training, technical assistance, and opportunities for peer-to-peer learning can help farmers adopt sustainable practices and maintain compliance.

Certification and Verification

Robust certification and verification processes are essential to ensure the credibility and integrity of VSS. Accredited bodies must conduct thorough audits and evaluations to validate compliance with the standards, fostering trust in the supply chain.

Market Access and Linkages

Developing strong market linkages and creating demand for VSS-certified products is key to the long-term sustainability of the agricultural sector. Partnerships with retailers, exporters, and local consumers can open up new market opportunities for farmers.

Policy Support

Governments play a crucial role in supporting the implementation of VSS through policy frameworks, incentives, and regulatory mechanisms. Aligning national strategies with the goals of sustainable agriculture can create an enabling environment for farmers.

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Module 2.4: VSS Implementation: benefits and challenges

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Continuous Improvement and Impact Measurement

1

Goal Setting

Establishing clear and measurable sustainability goals is the first step in driving continuous improvement. These goals should be aligned with the specific requirements of the chosen VSS framework, such as Demeter PGS, EOL, or Organic EU.

2

Performance Tracking

Implementing robust monitoring and evaluation systems is essential for tracking progress and measuring the impact of VSS implementation. This includes collecting data, conducting regular audits, and analyzing key performance indicators.

3

Adaptation and Improvement

Based on the performance data and feedback, farmers and supply chain actors can adapt their strategies and implement improvements to enhance the sustainability of their agricultural practices and supply chains.

The Path to Sustainable Agriculture

VSS Framework	Key Focus Areas	Benefits
Demeter PGS	Organic and biodynamic farming, community engagement	Improved soil health, biodiversity conservation, farmer empowerment
EOL as SFSC	Fair trade, local production, community-based economy	Enhanced livelihoods, reduced environmental impact, strengthened local food systems
Organic EU as EOSC	Organic certification, export-oriented supply chains	Access to international markets, increased product value, environmental stewardship

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Addressing Environmental Challenges through VSS

1 Soil and Water Conservation

VSS frameworks, such as DEMETER PGS and Organic EU, promote sustainable soil and water management practices, including the use of organic fertilizers, water-efficient irrigation techniques, and measures to prevent soil erosion and degradation.

2 Biodiversity Protection

VSS standards encourage the preservation and enhancement of biodiversity within agricultural systems, through the implementation of practices that support diverse habitats, protect endangered species, and promote ecosystem resilience.

3 Climate-Smart Agriculture

VSS frameworks often incorporate climate-smart agricultural techniques, such as the use of cover crops, agroforestry, and reduced tillage, to mitigate the impacts of climate change and enhance the resilience of farming systems.

Addressing Social Challenges through VSS

Fair Wages

VSS frameworks, like EOL, prioritize fair and equitable compensation for farmers and agricultural workers, ensuring that they receive a living wage and can sustain their livelihoods.

Worker Safety

VSS standards mandate the implementation of robust health and safety measures to protect the well-being of farmers and agricultural workers, including the provision of personal protective equipment and the prevention of hazardous working conditions.

Community Engagement

VSS frameworks, such as DEMETER PGS, foster community engagement and collaboration, empowering local stakeholders to participate in the development and implementation of sustainable agricultural practices.

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Overcoming Challenges in VSS Implementation

1

Awareness and Understanding

Addressing the limited awareness and understanding of VSS among farmers is a crucial first step, requiring comprehensive education and training programs to enhance their knowledge and skills.

2

Access to Resources

Facilitating farmers' access to technical knowledge, sustainable inputs, and financial support can help overcome the barriers associated with adopting and maintaining VSS compliance.

3

Market Linkages

Strengthening market linkages and creating demand for VSS-compliant products is essential to ensure that farmers can access markets that value and reward sustainable practices.

Collaborative Efforts for Sustainable Agriculture

Stakeholder	Role in VSS Implementation
Farmers	Adopt sustainable practices, participate in certification, and provide feedback
Government	Develop supportive policies, provide financial incentives, and facilitate market access
NGOs and Research Institutions	Offer technical assistance, training, and knowledge-sharing platforms
Certification Bodies	Establish and enforce VSS criteria, conduct audits, and issue certifications
Consumers	Demand and support VSS-compliant products, provide feedback on market needs

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The Path Forward: Embracing Sustainable Agriculture

Sustainable Farming Practices

By embracing VSS frameworks like DEMETER PGS, EOL, and Organic EU, farmers can adopt sustainable farming practices that protect the environment, support local communities, and enhance their access to domestic and international markets.

Empowered Farmers

The collaborative efforts of stakeholders, including farmers, government, and support organizations, can empower farmers to overcome challenges and successfully implement VSS, leading to improved livelihoods and a more resilient agricultural sector.

Sustainable Food Systems

The integration of VSS into the agricultural sector can contribute to the development of sustainable food systems that prioritize environmental conservation, social responsibility, and economic viability, benefiting both present and future generations.

MODULE 2.4: Self-assessment test

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Voluntary Sustainability Standards Implementation

Module 2.4: VSS Implementation: benefits and challenges

Self-assessment

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1. What does VSS stand for?
A. Voluntary Supply Standards
B. Voluntary Sustainability Standards
C. Verified Sustainability Standards
D. Voluntary Sustainable Solutions

2. Which of the following is NOT a focus area of VSS frameworks?
A. Environmental impact
B. Economic growth
C. Personal preferences
D. Social equity

3. What is one primary benefit of implementing VSS?
A. Increasing production costs
B. Reducing transparency
C. Enhancing market access
D. Decreasing collaboration among stakeholders

4. What type of challenges does VSS implementation often face?
A. High consumer trust
B. Lack of coordination tools
C. Abundance of resources
D. Excessive government support

5. Which VSS framework emphasizes fair trade and community engagement in short food supply chains?
A. Demeter PGS
B. Organic EU
C. Economy of Love (EOL)
D. Global Gap

6. What is the goal of integrating sustainability principles into VSS?
A. Boosting short-term profits
B. Reducing international trade
C. Achieving positive impacts on environmental, social, and economic levels
D. Standardizing production methods for all industries

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Correct answers

1. B
2. C
3. C
4. B
5. C
6. C

MODULE 2.4: Glossary

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Glossary

Here are the key terms we've learned in this module:

- **Voluntary Sustainability Standards (VSS)**: Frameworks specifying sustainability requirements in agricultural production and trade.
- **Demeter PGS**: A participatory guarantee system promoting organic and biodynamic farming.
- **EOL (Economy of Love):** A VSS focused on short food supply chains, fair trade, and community engagement.
- **Organic EU**: A certification ensuring compliance with EU organic standards, enabling export-oriented supply chains.
- **Sustainability Principles**: Key pillars such as economic, environmental, and social goals within VSS frameworks.

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