The Global Action on Green Development of Special Agricultural Products:
One Country One Priority Product (OCOP)

Action plan
2021–2025
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on Green Development of
Special Agricultural Products:
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## Abbreviations and acronyms

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<tr>
<td>AMR</td>
<td>Antimicrobial resistance</td>
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<tr>
<td>BE</td>
<td>Better environment</td>
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<td>BL</td>
<td>Better life</td>
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<td>BN</td>
<td>Better nutrition</td>
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<td>BP</td>
<td>Better production</td>
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<td>CA</td>
<td>Conservation agriculture</td>
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<td>COVID-19</td>
<td>Coronavirus disease 2019</td>
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<td>CPF</td>
<td>Country Programming Framework</td>
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<td>CSA</td>
<td>Climate-smart agriculture</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>FVC</td>
<td>Food value chain</td>
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<td>GAP</td>
<td>Good agricultural practices</td>
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<td>GHG</td>
<td>Greenhouse gas</td>
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<td>GI</td>
<td>Geographical Indications</td>
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<td>HiHI</td>
<td>FAO Hand in Hand Initiative</td>
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<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>IPM</td>
<td>Integrated pest management</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>IWMI</td>
<td>International Water Management Institute</td>
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<td>NGOs</td>
<td>Non-governmental organizations</td>
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<td>NTF</td>
<td>National Task Force</td>
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<td>OCHA</td>
<td>UN Office for Coordination of Humanitarian Affairs</td>
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<td>OCOP</td>
<td>One Country One Priority Product</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<td>oriGIn</td>
<td>Organization for an International Geographic Indications Network</td>
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<td>OVOP</td>
<td>One Village One Product</td>
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<td>PPAs</td>
<td>Programme Priority Areas</td>
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<tr>
<td>ROG</td>
<td>Regional Organizing Group</td>
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<td>RNE</td>
<td>FAO Region Office for Near East and North Africa</td>
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<td>SAPs</td>
<td>Special Agricultural Products</td>
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<td>SC</td>
<td>Steering Committee</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SOPs</td>
<td>Standard Operating Procedures</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNFSS</td>
<td>United Nations Food Systems Summit</td>
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<td>USD</td>
<td>United States Dollar</td>
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<td>WFP</td>
<td>World Food Programme</td>
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<td>WHO</td>
<td>World Health Organization</td>
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Executive summary

Agricultural production systems encompassing crop, forestry, livestock, aquaculture and fisheries production, play an essential role in meeting the increasing demands for food, feed, fibre and fuel. It is estimated that, by 2050 food production will have to increase by over 50 percent to meet the projected demands of a growing population, of diet shifts, and of increasing biofuel use. **Crop production** is the foundation of agriculture as it accounts for over 80 percent of the calories in human diets. It is estimated that 80 percent of the projected additional food demand by 2050 will need to be derived from plant products. **Forests** are not only a source of timber, but non-wood forest products equally play a key role in food production, watershed management and the provision of habitats for biodiversity as well as ecosystem services, including carbon sequestration and pollination services. **Livestock** production accounts for 18 percent of the global food energy and 34 percent of the global protein consumption, and provides essential vitamins and various bioactive compounds. **Fish** and other aquatic products are recognized as a valuable component of a balanced diet, providing proteins and essential micronutrients especially for the poor and vulnerable, while contributing to long life expectancy.

Achieving an environmentally-sustainable increase in the production and access to affordable healthy diets, while protecting and enhancing the livelihoods of the world’s small-scale agricultural producers and other agrifood system actors, is a global challenge. Moreover, agricultural production systems still lack integration, optimization, diversification and innovation, while still relying on the intensive usage of chemical inputs and natural resources. Additionally, global food supplies today increasingly rely on just a few crops and animal species, increasing their vulnerability to biotic stresses.

In response to the current and emerging challenges, **FAO developed a Strategic Framework for 2022–2031** endorsed by the Forty-second Session of FAO Conference in June 2021. This framework aims at transforming the agrifood systems into being more efficient, inclusive, resilient and sustainable to achieve **better production and nutrition** as well as **a better environment** and **a better life**; leaving no one behind. It serves as a guiding principle and an innovative business model to support FAO in achieving the UN Sustainable Development Goals (SDGs) of the 2030 Agenda. In this context, a **Global Action on Green Development of Special Agricultural Products: “One Country One Priority Product” (OCOP) (hereafter “OCOP”)** has been developed.

**Green Agriculture** is a key approach for sustainable development in the context of the current global challenges. Green agriculture aims to reduce greenhouse gas emissions, increase resilience, ensure food and nutrition security as well as higher incomes for small-scale producers. In addition, it aims to improve human welfare, create opportunities for employment and decent work for all, but without depleting natural resources and while maintaining the healthy functioning of the Earth’s ecosystems in
the present and for the future. It employs agricultural practices as well as technologies and innovations, such as climate-smart agriculture, biotechnology and agroecological approaches, sustainable forestry, aquaculture, fisheries, soil management, disaster risk prevention and management, and more. **Special Agricultural Products (SAPs)** are agricultural products with unique qualities and special characteristics associated with geographical locations, farming practices and cultural heritages. Compared to staple food crops, SAPs have not yet fully benefited from agricultural and rural development programmes. They are important examples of agricultural products which contribute to ensuring food security and healthy diets, supporting a sustainable bioeconomy and improving farmers’ livelihoods and economic growth, while protecting the environment and biodiversity. SAPs include all kinds of agricultural products, with the potential of integration into mainstream and high-value domestic and international value chains and markets. SAPs are closely related, but not limited to, products featuring **Geographical Indication (GI)**, which is a sign used on goods that have a specific geographical origin and possess qualities or a reputation that are attributed to the place of origin. The specific qualities involved are the result of local natural or human factors. GIs are protected by intellectual property rights.

The green development of SAPs aligns closely with FAO’s mandate and comparative advantage, including its expertise in key areas for the OCOP and its capacity to strengthen linkages between national development strategies, initiatives and regional policies by fostering dialogues with relevant stakeholders. Further, FAO offers a wide network of country and regional offices, institutional and technical capacity, and close linkages with other relevant UN agencies and FAO programmes and initiatives, which will increase synergies and support the OCOP.

In order to promote inclusive, profitable and environmentally-sustainable agrifood systems through the green development of SAPs, the OCOP will address **five major global challenges** including: i) increase productivity and ensure access to affordable healthy diets; ii) reduce crop and food loss; iii) save water and optimize land uses; iv) minimize agricultural chemical inputs; and v) mitigate and adapt to the effects of climate change.

There are signs of yield stagnation in the world’s major cereal crops, including maize, rice and wheat, with annual yield increases of about 1 percent, which is insufficient to double the food production by 2050. Furthermore, low agricultural productivity and inefficient food supply chains, together with climate shocks, are increasing the cost of healthy diets, thereby rendering them unaffordable for 3 billion people globally. Adding to this, depending on the commodity and geographical region, about one-third of the global food produced for human consumption is lost and/or wasted every year, during the post-harvest, retail and consumption stages. Deforestation, largely caused by extensive agriculture production, contributes significantly to the loss of biodiversity, and since 1990, a net area of 178 million ha of forest has been lost.
Around 1.2 billion people live in agricultural areas, which are experiencing very high levels of water stress and drought frequency, and agriculture is by far the largest water user accounting for more than 70 percent of global withdrawals of water, followed by industries and municipalities. During the last 40 years, the world has lost a third of its arable land area, partly due to unsustainable agricultural practices and the misuse of chemical fertilizers and pesticides. Today, about 33 percent of the arable land is moderately to highly degraded due to soil erosion, acidification, salinization, compaction and chemical pollution.

The use of chemical fertilizers, pesticides and plastics has continued to increase, which is negatively affecting soil microbial functions, contributing to water pollution and has serious implications for human suffer. Agrifood systems also contributes to climate change and, at the same time, suffers the consequences of climate change. About 21–37 percent of the global greenhouse gas emissions are directly caused by the food system. Hence, mitigation and adaptation measures need to address the development of long-term sustainable and resilient agricultural systems.

To address these challenges at the global, regional and local levels, the OCOP aims to: i) facilitate the development of sustainable and inclusive value chains for family farming and smallholders; ii) support the Members through the implementation of the Country Programming Frameworks; iii) strengthen the implementation of the FAO Strategic Framework 2022–2031; and iv) contribute to achieving the UN SDGs for the 2030 Agenda.

In placing the production and distribution/marketing models of smallholders and family farming at the centre of the interventions, OCOP will help countries leverage their unique potential and identify SAPs adapted to their agro-ecological production systems as well as their national or cultural heritage, ensuring improved access to stable markets, which can act as a key entry point for reaching their defined priorities. This will contribute towards the Programme Priority Areas of the FAO Strategic Framework 2022–2031, and the aspiration of its Four Betters, that consist of better production, better nutrition, a better environment and a better life, and the related SDGs, SDG1, SDG2 and SDG 10, as well as SDG3, SDG5, SDG 6, SDG12, SDG13 and SDG15.

The implementation of the OCOP is based on the principles of: i) a collaborative design and country-led implementation; ii) a demand-driven and comparative advantage-oriented approach; iii) integrating production with a value chain approach; iv) an approach centred on agro-ecological regions and production systems to promote green technologies; and v) a multidisciplinary approach and engagement with different stakeholders.

Participation in the OCOP is open to all FAO Members. While each country is foreseen to select only one priority SAP for its support and coordination by FAO, as per
the guidelines for resource allocation and the share of the contributions provided via FAO, countries have the possibility to use the OCOP framework to target and promote additional SAPs, through their own funding or other sources (1+N model). The OCOP will mainstream the development of SAPs into three agro-ecological regions including: i) tropics; ii) drylands and iii) mountainous regions; and six product categories: i) food crops; ii) cash crops; iii) horticulture crops; iv) forestry; v) livestock; vi) aquaculture and fishery.

The implementation of the OCOP is planned across two phases, with the first phase focusing on the green development of the plant-based SAPs: food crops, cash crops, horticultural crops and forestry products. After gaining experience through the piloting of the first phase, the second phase will also include the green development of livestock, aquaculture and fishery SAPs. Furthermore, the OCOP covers four thematic areas, corresponding to the main stages of the value chain: i) green production; ii) green storage; iii) green processing; and iv) green marketing. While the main focus of the OCOP is on production, the other thematic areas of the local food systems will also be considered. Initially, each country will be invited to select a maximum of three thematic areas, of which one must be production, depending on the budget allocation and the funding opportunities. Each thematic area comprises technical guidelines with key elements and examples of the associated green technologies and innovations, which countries can use as a comprehensive, but not exhaustive source of reference.

The Theory of Change of the OCOP describes a number of drivers for change that the global agrifood systems face today, and how OCOP will address these by addressing the main barriers to progress through targeted actions, leading to transformational outcomes and a paradigm shift contributing towards improved agri-food systems and value chains.

The expected impact of the OCOP is that agrifood systems are improved and more sustainable, and market opportunities are increased for smallholder and family farms through the development and integration of more efficient, inclusive, sustainable, resilient and diverse value chain of SAPs.

It is predicted that the OCOP expected outcomes will contribute to the Four Betters, which are the aspirational impacts of the FAO Strategic Framework, where: i) productive and resilient production systems are created; ii) food security, improved nutrition and affordable healthy diets are ensured; iii) the environment is sustainably improved; and iv) inclusive economic growth is ensured.

Targeted activities will contribute to five outputs, in which the: i) technical networks for innovation and transformation for the green development of SAPs are established; ii) technologies for the green development of SAPs are disseminated;
iii) enablers for green development of SAPs are formulated and applied; iv) effec-
tive market access platforms for green development of SAPs are formulated; and
v) an efficient coordination mechanism for green development of SAPs nation-
wide is established.

The OCOP has been designed as a five-year programme (2021–2025), which was
launched in 2021. During 2022–2024, major activities are predicted for integration,
demonstration, validation and scaling up for green development practices. By 2025,
advocacy will be accelerated and the outputs will be replicated and further scaled
up with a clear exit strategy, where FAO support will be gradually reduced and the
country’s ownership will take over.

Following the development of a detailed resource mobilization plan and partner-
ship strategy, resources will be mobilized at the global, regional and national levels
by synergizing internal and external funding sources and other forms of support.
The support to countries will depend on the resource availability. However, the share
of contributions provide by FAO will depend on the country’s economic conditions
and status (as defined by the UN country classification).

An effective organization and coordination mechanism is being established for
implementing the OCOP at three levels: i) at the global level, a Steering Com-
mitee has been set up at FAO headquarters to oversee the implementation; ii) a
Regional Organizing Group will be established for each region to coordinate the
implementation within the region; and iii) a National Task Force for each particip-
ipating country will be formed by each country for implementing the activities at
the national level.

The OCOP will foster internal synergies and will be closely linked to all the relevant
FAO and UN initiatives and programmes. Furthermore, the external cooperation
and collaboration will be facilitated and promoted, including technical coopera-
tions and resource mobilizations.

Relevant media sources and communication channels will be explored to actively
promote the implementation of the OCOP, including raising awareness, updating
and disseminating information as well as promotion and market access facilitation
at local, national, regional and global levels.

All FAO Members are encouraged to join the OCOP and submit proposals based on
their own demand, priority and comparative advantage. The proposals submitted
to FAO by its Members should be in a form of a Concept Note (see further details
in Chapter 9 and Appendix 2), aligned to the Country Programming Frameworks,
Regional Priorities, FAO Strategic Framework 2022–2031, SDG and other relevant
FAO initiatives and programmes.
The official request for the projects along with the Concept Note should be submitted by the National Government to the FAO Country Office, which will then be submitted to the Regional Office for review and prioritization. The Regional Office will submit the reviewed Concept Note to the OCOP Secretariat for consolidation, and finally, to the FAO Steering Committee for approval.
1. Introduction

1.1 Importance of agricultural production

Agricultural production provides the basic necessities of life, including food, feed, fibre and fuel as well as a friendly environment, while ensuring food security and nutrition, healthy diets, and supporting farmers' livelihoods and economic growth.

Addressing the challenges of hunger, food insecurity and malnutrition in all its forms under a rapidly growing global population, biodiversity loss, pollution and climate change, represent the key targets of the 2030 Agenda for Sustainable Development.

However, despite remarkable progress towards increasing income and wealth globally, billions of people still face pervasive poverty, hunger and malnutrition as well as various dimensions of inequality, unemployment, migration, disease and deprivation from vital goods and services. Over the last five years, the number of undernourished people has increased by 60 million. There are still about 750 million people undernourished, while almost two billion people suffer from being overweight and obese, indicating an unhealthy diet and lifestyle. In addition, an estimated 700 million people, mostly in Africa and South Asia, live in extreme poverty and more than 650 million people may still be facing hunger by 2030. This highlights that critical action steps are needed to transform agrifood systems to increase food and nutrition security as well as reduce unequal access to food (FAO et al., 2021).

Agrifood systems, encompassing crop, forestry, livestock, aquaculture and fishery production, play an essential role in meeting the rising demands for food, feed, fibre and fuel (Figure 1), which are closely linked to the global population increase (OECD & FAO, 2021). Agrifood systems also contribute substantially to various Sustainable Development Goals (SDGs), particularly SDG 1 (No poverty), SDG 2 (Zero hunger) and SDG 10 (Reduced inequalities).

Crop production establishes a foundation for sustainable agriculture, as it accounts for over 80 percent of the calories in the human diet. It is estimated that, by 2050, food production will have to increase by over 50 percent to meet the projected demands that stem from a growing population, diet shifts, and increasing biofuel consumption, in which 80 percent of this will need to come from plant products (OECD & FAO, 2021). Forests are not only the source of timber, and several non-wood forest products (fruits, nuts, edible plants, insects, mushrooms, berries, etc.), but also play a key role in sustainable food production. In addition, forests provide ecosystem services, including pollination services for agriculture, where up to 35 percent of the world's crops rely on pollinators for production (Klein et al., 2007). Pollinators benefit from diverse natural habitats for forage and nesting, especially when these are limited in plant production sys-
tems. Landscape and forest management practices can help ensure the continued availability of pollinators and thereby increase resilience and the productivity of forestry and agriculture (Krishnan et al., 2020).

Animal-source foods from livestock production contributes to 18 percent of the global food energy and 35 percent of the global protein consumption, with variable contribution degrees across regions, gender and income levels. It also provides essential vitamins and various bioactive compounds. Although they are not calorie-dense, fish products are noted for their high-quality proteins and essential amino acids, polyunsaturated fatty acids and micronutrients, such as vitamins and minerals. Evidence shows that a dietary pattern with a high percentage of fish intake contributes to a long life expectancy, due to its low content of cholesterol and saturated fats (FAO, 2020a).

Food insecurity and malnutrition is on the rise in almost all regions of the world and the socioeconomic impacts of the ongoing COVID-19 pandemic have worsened pre-existing challenges for rural communities, including limiting the inclusion of poor and vulnerable groups, low resilience to climate change and risk of economic shocks. For example, COVID-19 has been a main contributor to the recent increases in food prices, the global GDP reduction of 3.5 percent during 2020, and

Figure 1. The current and forecast global usage of the major commodities to 2030

the 124 million additional people that were pushed into extreme poverty. This might widen the gender poverty gap, and in combination with the restricted movement and social isolation, increase women’s vulnerability to violence in the home (UN, 2021a).

The FAO Strategic Framework for 2022–2031, endorsed by the 42nd Session of FAO Conference in June 2021, focuses on the transformation to more efficient, inclusive, resilient and sustainable agrifood systems for better production, better nutrition, a better environment and a better life, leaving no one behind (FAO, 2021a). The Strategic Framework serves as a guiding tool and an innovative business model articulating how FAO will support the achievement of the 2030 Agenda. In this regard, FAO will assist its Members to address the interlinked economic, social and environmental dimensions of agrifood systems to produce more with less using innovative and sustainable approaches.

Strengthening national capabilities in sustainable value chain developments, including crop improvement and management, soil fertility and restoration, plant nutrition, and integrated pest management, as well as in post-harvest management, storage, transport, processing and marketing, are key elements to increase crop yields and market access, while providing safe and nutritious produce. The existing and emerging global challenges must be met while enhancing the livelihoods of the world’s small-scale producers and other agrifood systems actors under the reality of a changing climate and environment. On the other hand, agrifood systems and their related value chains still lack integration, optimization, diversification and innovation, while relying on the intensive use of chemical inputs and natural resources.

1.2 Importance of special agricultural products

Although it is widely accepted that agricultural production systems that are based on just a few crops are more vulnerable to biotic stresses, where an estimated 75 percent of the food consumed originates from only 12 plant and five animal species (FAO, 2004). Recent research (Furman et al., 2021), showed that only nine plant species (sugarcane, maize, rice, wheat, potatoes, soybeans, oil palm fruit, sugar beet and cassava) account for over 66 percent of all crop production and 53 percent of global average daily calories, despite the identification of almost 400 000 higher plants, of which around 27 600 are edible. (Figure 2).

Hence, to ensure sustainable consumption and production patterns, and to harnesses the potential value chain development of traditional food and agricultural products, the promotion of green innovations for sustainable crop, forestry, livestock, aquaculture and fisheries production is required.

Special Agricultural Products (SAPs) have unique qualities and special characteristics that are associated with geographical locations, farming practices and cultural heritag-
Compared to staple food crops, SAPs have not yet fully benefited from agricultural and rural development programmes. They can significantly contribute to food security and healthy diets, support a sustainable bioeconomy and improve farmers’ livelihoods and national economic growth, while protecting the environment and the local biodiversity. SAPs include all kinds of products, recognized (or having the potential to be recognized) as national or local agriculture symbol products, with a unique quality and with special characteristics that are associated with farming practices and geographical factors. SAPs may include a vast diversity of products, e.g. horticulture products alone consist of fruits, vegetables, root and tuber crops as well as herbs, condiments, ornamentals and mushrooms. Therefore, SAPs can potentially be integrated into local, regional and global value chains, markets and trade. The development of SAPs can help address the aforementioned challenges, including food insecurity and malnutrition, natural resource constraints, environmental pollution, biodiversity loss, ecological degradation and climate change. Therefore, it is crucial to promote the green development of SAPs.

SAPs are closely related to a Geographical Indication (GI), which is a sign used on goods that have a specific geographical origin and possess qualities or a reputation that are linked to that origin. Most commonly, a GI represents the place of origin's name as well as specific qualities that are results of local, natural or human factors. GIs are protected by intellectual property rights (IPR), according to the World Trade Organization's agreement on the Trade-Related Aspects of the Intellectual Rights (TRIPs) and the Geneva Act (FAO, 2019d). The Organization for an International Geographical Indications Network (oriGIn) represents GI from a large variety
of sectors from more than 40 countries that is campaigning for the effective legal protection and enforcement of GIs at the national, regional and international levels. Globally, there are around 8 600 GIs, of which most are in Europe (45 percent) and in Asia (40 percent), which are equally divided between food products and non-food products. Among the food products, the majority belong to “fruits, vegetables and cereals, fresh or processed” (42 percent), followed by “fresh animal products” (9 percent) and “cheese” (8 percent). Among non-food products “wine” represents 61 percent of all PI, followed by “spirits” (9 percent), “fibres and textiles” (6 percent) and “processed minerals” (5 percent) (oriGIN, 2022).

1.3 Green development of special agricultural products

As stated in “Our Common Agenda – Report of the UN Secretary-General” (UN, 2021a), the choices we make today should result in a greener, better and safer future. We should plan for the long term, to deliver more for young people and succeeding generations and to be better prepared for the challenges ahead. In this regard, sustainable agriculture must meet the needs of present and future generations, while ensuring profitability, environmental health as well as social and economic equity (FAO, 2020b). To achieve sustainability, agrifood systems must produce more with less, minimize the impact on the environment and sustain natural resources. Green agriculture is a key approach for sustainable development in the context of the current global challenges. It aims to reduce greenhouse gas (GHG) emissions, increase resilience, ensure food security and nutrition, higher incomes for small-scale producers, improve human welfare, create opportunities for employment and decent work for all, without depleting natural resources, and while maintaining the healthy functioning of the Earth’s ecosystems now and in the future. Green agriculture employs environmentally-friendly agricultural practices, technologies and innovations, such as climate-smart agriculture (CSA), biotechnology and agroecological approaches, soil fertility and health management, disaster risk prevention and other types of sustainable production in the crop, livestock, forestry, aquaculture and fishery sectors (FAO, 2021b; FAO, 2021c).

Although many of the practices and principles for the development of commonly known agricultural products are also appropriate for the green development of SAPs, most of the SAPs are fundamentally different from those. Furthermore, the high-value market and trade potential as well as the critical quality and flavour characteristics of SAPs, requires specific consideration. Therefore, green technologies for the production, storage, processing and marketing of SAPs are knowledge- and labour-intensive, and require high-quality inputs and Standard Operating Procedures (SOPs), value chain improvement, capacity development, an enabling environment and suitable innovations based on the country context.

Green development in plant production involves continuous promotion and integration of innovative and green practices and technologies, such as conservation
agriculture (CA), integrated pest management (IPM), organic farming, CSA, digitalization, precision and sustainable mechanization, in addition to high-quality seed of adapted and improved varieties, diversified cropping systems and sustainable management of soil, water, nutrients, pests and diseases.

Innovative and green technologies play a key role to provide a sustainably increased agricultural productivity while ensuring profitability, environmental health as well as social and economic equity. For example, CSA with the three main objectives of sustainably increasing agricultural productivity and incomes, adapting and building resilience to climate change as well as reducing and/or removing greenhouse gas (GHG) emissions, are supporting the achievement of all 17 SDGs. Occasionally, an action intended to advance one SDG objective creates a trade-off related to another. However, these trade-offs are manageable, and with careful planning, can be minimized. (FAO, 2019a).

Accordingly, the green development of SAPs requires knowledge, technology, innovation and practices that can lead to more environmentally-friendly and ecologically-responsible decisions to transform agrifood systems and sustain natural resources. Promoting on the green development of SAPs has the potential to contribute significantly to the SDG, and is an opportunity to meet growing food demand, reduce agriculture and food system sensitivity to shocks, reduce farmers’ vulnerability and improve consumers’ access to diversified, nutritious and safe food.

1.4 Global action on green development of special agricultural products

FAO has initiated and developed the Global Action on Green Development of Special Agricultural Products: “One Country One Priority Product” (OCOP) (hereafter “OCOP”), based on the FAO Strategic Framework 2022–2031. It will promote inclusive, profitable, resilient and environmentally sustainable agrifood systems through the green development of SAPs. This will be achieved through optimizing the structure, functionality, and services of the SAPs production systems and value chains by minimizing production and yield losses as well as natural resource degradation, biodiversity loss, crop and food loss, and the unsustainable use of chemical inputs, while maximizing integrated profits. The goal of the OCOP is to support the transition to more efficient, inclusive, resilient, and sustainable agrifood systems, ultimately contributing to fulfilling the FAO vision of Four Betters (better production, better nutrition, a better environment, and a better life), and to the implementation of the Programme Priority Areas (PPAs).

The OCOP has been formulated with reference to the “One Village One Product” (OVOP) concept that originated in Japan in 1979, which has drawn significant attention regionally and globally. OVOP has been adopted in numerous home-grown initiatives with a wide variety of objectives, approaches, governance, and outcomes,
but also several common features, including value chain development, capacity development, partnership, networking and community participation (OCHA, 2017). A recent review of OVOP revealed that this strategy, in general, can result in employment opportunities and income, in addition to the enhanced creativity and capabilities of the local population. (Hoang Thanh et al., 2018).

Consultations have been conducted by the FAO headquarters and its Regional Offices, in which the experiences and lessons learnt from OVOP will effectively guide the design and implementation of the OCOP. The outcome of these consultations demonstrated the successful implementation of the concept in a number of countries and allowed to define the key bottlenecks and prospects for further development and promotion of SAPs. More regional and national expert consultations and assessments will be carried out for situation analyses to define the bottlenecks and select the pilot countries, SAPs, green technologies and green enablers to be developed, demonstrated and promoted in the framework of the OCOP.

In order to cope with the five major global challenges, this Action plan was developed with four overall objectives and the application of five key principles, including specific thematic areas covering the entire value chain, agro-ecological regions, product categories, and a Theory of Change to achieve the OCOP results with tangible impact, outcomes and outputs (Figure 3).

1.5 FAO comparative advantages

FAO is the United Nation's specialized agency in food and agriculture, which leads the international effort to eradicate hunger, food insecurity and malnutrition. FAO is also the only UN agency which has dedicated programmes on agriculture, aquaculture, fisheries, forestry and food systems to address food security, nutrition, sustainable management of natural resources, mitigation and adaptation to climate change as well as gender equality, decent rural employment and related challenges. It has an extensive record of achievements in providing policy assistance, developing technical guidelines, promoting knowledge exchange and raising awareness on these topics, which were implemented to improve livelihoods in sustainable landscapes.

Hence, FAO has a unique role and capacity to lead and coordinate both initiatives and programmes to help and guide the global community and its Members in their efforts to tackle emerging issues and to transform agrifood systems. The multisectoral and interdisciplinary approach that FAO is employing in its work, the wide range of expertise, and its extensive network of offices present in more than 130 countries (FAO, 2021d), place FAO in a unique position to implement comprehensive initiatives. Furthermore, the partnerships with international entities, civil society, private sector and national institutions add additional strength to its operational capacity.
FAO has developed expertise in the wide range of areas relevant to agricultural development, and has the capacity to link the national development initiatives to
regional and global policies by fostering policy dialogue with relevant stakeholders at different levels. FAO has a long history in supporting its Members in the sustainable development of food value chains (FVC), together with partners developing technical solutions, response strategies and major guidance documents (FAO, 2014a; OCED & FAO, 2016).

For the purpose of promoting FVCs of specific commodities and products at a global level, FAO has facilitated, together with Governments, relevant organizations, non-governmental organizations (NGOs), and other relevant stakeholders, the annual celebration for specific commodities and related topics in agriculture (UN, 2021b), including rice (2004), potato (2008), natural fibers (2009), biodiversity (2010), forests (2011), quinoa (2013), family farming (2014), soil (2015), pulses (2016), plant health (2020), fruits and vegetables (2021), artisanal fisheries and aquaculture (2022), millets (2023) and camelids (2024).

Furthermore, when the UN International Decades fall within the scope of FAO competencies, FAO is marking this through promotion, awareness and action steps, e.g., for the international decade of deserts and the fight for desertification (2010–2020), biodiversity (2011–2020), nutrition (2016–2025), family farming (2019–2028) and ecosystem restoration (2021–2030) (UN, 2022). Hence, FAO has helped to develop and implement a range of initiatives and provided useful experiences and recommendations in strengthening national FVCs, including the need for developing common platforms at local, regional and global levels, guidance on norms and standards, while taking into consideration the cultural context and diversity as well as multi-stakeholder engagements.

In addition, the green development of SAPs aligns closely with FAO’s mandate and comparative advantage, including its expertise in the key areas of the OCOP and its capacity to strengthen linkages between the national development strategies and initiatives and the regional policies by fostering dialogues with relevant stakeholders. Further, FAO offers a wide network of country and regional offices, institutional and technical capacities, and close linkages with other relevant UN agencies and FAO programmes and initiatives, which will increase the synergies and support available for the OCOP.
2. Rationale

The OCOP has been designed to cope with five major global challenges that face the current agrifood systems. To meet these challenges, the OCOP will integrate, demonstrate and disseminate green technologies with their respective green enablers for SAPs, which is based on scientific evidence and innovations as well as local knowledge and experiences. These and other challenges were discussed at the United Nations Food Systems Summit (UNFSS) that convened in September 2021. The UNFSS was setting the stage for global food systems transformation with the objective of ensuring access to safe and nutritious food for all, shifting to sustainable consumption patterns, boosting nature-positive production, advancing equitable livelihoods and building resilience to vulnerabilities, shocks and stress. During the preparatory dialogues and meetings prior to the Summit, around 150 countries announced voluntary commitments to ensure more efficient, inclusive, resilient and sustainable food systems across the globe.

2.1 Increase productivity and ensure healthy diets

Meeting a growing food demand (+50 percent by 2050) requires increased production while ensuring food safety standards, which can be achieved through the development of improved crop varieties and animal breeds, promotion of safe and integrated disease and pest management, adoption and promotion of improved production as well as processing and storage management technologies. However, several reports underscore the challenge of meeting the growing demand, including reports of yield stagnation in the world's major cereal crops (maize, rice and wheat) with annual yield increases of 0.9–1.6 percent, which is less than the annual 2.4 percent increase that is required to double global production by 2050 (Ray et al., 2012; Ray et al., 2013). In parallel to developing improved crop varieties, the use of farmers' varieties and landraces is an option to cope with the challenge. In this regard, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), established a global system to provide access to plant genetic material and ensure shared benefits from the from using this genetic material.

Most of the additional demand for food is expected to come from low- and middle-income countries (Figure 4). Hence, increasing the production of crops, forestry, livestock, aquaculture and fisheries, especially in low- and middle-income countries, is essential to meet the increasing demand, along with efforts to enhance and diversify diets and improve access to nutritious food.

Growth of crop production is projected to increase by 18 percent over the next decade, with the Asia-Pacific region contributing to 61 percent of the increase. Gains in crop yields are the main drivers and are expected to account for 88 percent of the increase in production. Leading up to 2030, global livestock and fish production is expected
to expand by 14 percent, the majority of which (82 percent) is expected to originate in low- and middle-income countries. Global meat production is expected to increase by 13 percent or 44 million tonnes, due to increases in the number of animals and higher output per animal, with poultry meat production accounting for 52 percent. Global fish production is projected to grow at 1.2 percent per annum to 201 million tonnes by 2030, which is primarily driven by a slow, but continued, increase in aquaculture production (OECD & FAO, 2021). Low productivity and inefficient food supply chains, together with climate change and extreme events, economic downturns, animal and plant diseases as well as pests and conflicts are raising the cost of healthy diets, rendering them unaffordable for 3 billion people globally. In 2019, 80 percent of the population in Africa was unable to afford a healthy diet (FAO et al., 2021). Therefore, reaching global nutrition targets for 2025 and 2030 remains a challenge. In 2020, an estimated 22 percent of children under 5 years of age were affected by stunting, 6.7 percent by wasting and 5.7 percent by being overweight, while 29.9 percent of women, between 15 to 49 years old, were affected by anaemia in 2019 (Figure 5).

### 2.2 Reduce crop and food loss

Globally, around 14 percent of the food produced (in terms of economic value) is lost from the post-harvest stage and leading up to the retail stage, but excluding the latter (FAO, 2019), while around 17 percent of food production may be wasted during the retail and consumption stages (UNEP, 2021).
Figure 5. Challenges in reaching the 2025 and 2030 global nutrition targets


Similarly, summarizing the findings of over 800 studies on post-harvest loss from across the globe, IFPRI (2018) found that the extent and nature of post-harvest loss can vary greatly by crop and commodity, as well as geographical region, with post-harvest loss being especially severe for horticultural crops and animal products (Figure 6).

Worldwide, an estimated 20–40 percent of crop production is lost to pests and diseases, which is directly impacting food security and nutrition as well as household livelihoods and national economies (CABI, 2019). This is in agreement with a large global survey that includes 67 countries and five major food crops, which found that pathogens and pests are causing significant losses in wheat (10–28 percent), rice (25–41 percent), maize (20–41 percent), potato (8–21 percent) and soybean (11–32 percent). However, as demonstrated in Figure 7, there are large regional differences (Savary et al., 2019).

In this regard, the International Plant Protection Convention (IPPC) that acts as an intergovernmental treaty recognized by the World Trade Organization (WTO), can support countries from the spread and introduction of pests, while promoting safe trade.

Animal pests and diseases contribute to loss via an increased mortality rate, reduced productivity, increased control costs, loss in trade, decreased market value, and food insecurity (FAO, 2016). The economic and social impacts of animal pests and diseases have been recognized globally, in both developed and developing countries,
and annual production losses averaging 25 percent directly affect the income and wellbeing of farmers as well as the economic growth of many countries that depend on animal production (FAO, 2020c). The estimated global loss from transboundary zoonotic livestock diseases may go up to 20 billion USD per year (WB, 2010).

2.3 Save water and optimize land use

The FAO Report on the State of Food and Agriculture (FAO, 2020e) estimated that 1.2 billion people live in areas with very high levels of water stress (affecting irrigated areas) or very high drought frequency (affecting rainfed cropland and pastureland). Of these, 520 million live in rural areas, while 660 million live in small urban centres surrounded by agricultural land. Including areas that experience high (in addition to very high) levels of water stress and drought frequency, the overall number increased to 3.2 billion, of whom 1.4 billion live in rural areas.

With an increasing population, there is also an increasing competition for the limited water resources. Although the overall reduction in agricultural land area since 2000 is small, land under permanent and irrigated crops has increased, and the rapid growth in urban areas has displaced all types of agricultural land use (FAO, 2021j). Total water withdrawals have increased dramatically over time, and although the pace has slowed in recent decades, the rise continues (Figure 8). Agriculture has, by far, the largest water footprint, accounting for more than 70 percent of the global water withdrawals, followed by industries and municipalities (FAO, 2020e).
Figure 7. Global variations in the production and crop losses from pests and diseases in key crops

The increasing competition for water is also influenced by the dietary changes as countries develop economically, e.g. the observed shift in preferences from unprocessed cereals towards highly processed foods, livestock products and high-value crops, such as fruits and edible oils (FAO, 2020e). Such changes influence future water demand as livestock products require significantly more water than cereals, starchy roots, fruits and vegetables. Producing a kilogram of beef takes an average of 15 415 litres of water. The same amount of sheep or goat meat requires almost 9 000 litres, while a kilo of pork and chicken require 6 000 and 4 300 litres, respectively. In comparison, producing a kilo of vegetables, cereals and pulses requires 320, 1 644 and 4 055 litres of water, respectively. (Figure 9). On the other hand, a shift in diets towards more plant-based products is estimated to boost the national food supply by 28–36 percent and and reduce food loss and waste by 7–14 percent. The impact of a reduction in food losses or waste on food supplies varies widely from one country to another (FAO, 2019b).

During the last 40 years, the world has lost a third of its arable land area (about 430 million hectares), due to unsustainable agricultural practices (intensive tillage, ploughing virgin lands, flood irrigation and the unsustainable use of mineral fertilizers and pesticides, etc.), which contribute to environmental pollution, salinization and an increase in groundwater levels (Cameron et al., 2015). Today, about 33 percent of the arable land is moderately to highly degraded, owing to soil erosion, acidification, salinization, compaction and chemical pollution (FAO and ITPS, 2015). Contour ploughing and the restrictions on the cultivation of steeply sloping soils (United States Environmental Protection Agency, 2008) as well as CA (Corsi & Muminjanov, 2019) are proven measures for reducing soil erosion and degradation.
Figure 9. The water footprint of selected food products

Note: Green water refers to rainwater consumed; blue water to the volume of surface water and groundwater consumed (evaporated after withdrawal) as a result of production; gray water to the volume of freshwater required to assimilate the load of pollutants based on existing water quality standards.


Furthermore, agriculture contributes significantly to biodiversity loss and it is estimated that due to human-induced environmental changes (including agriculture), one million animal and plant species are threatened with extinction (IPBES, 2019). For example, up to 75 percent of the genetic diversity of crops has already been lost and up to 22 percent of the world’s 8,300 animal breeds are at risk. The main causes include, but not limited to, deforestation, water depletion and pollution. Deforestation poses one of the gravest threats to biodiversity, as forests harbour three-quarters of the world’s terrestrial biodiversity (FAO, 2019c; FAO & UNEP, 2020). The world’s forest area is decreasing (net area loss of 178 million ha since 1990), but the rate of loss has slowed, due to a reduction in deforestation in some countries, plus increases in forest areas in other countries (FAO, 2020d). Hence, in the period 2015–2020, the net loss of forest was 5 million hectares per year, due to the deforestation of 10 million hectares per year, but was compensated by 5 million hectares of forest expansion per year, which was reduced from 8 million hectares of forest loss per year in the period of 1990–2000, where deforestations were 16 million hectares per year and forest expansions were 8 million hectares per year (Figure 10).

Droughts and desertifications are responsible for the loss of about 12 million hectares of land each year (UN, 2019). In addition, freshwater ecosystems and wetlands
are being threatened by excessive water depletion and pollution. The bulk of capture fisheries production comes from coastal waters, where both the productivity and quality of fish stocks are severely affected by eutrophication and pollution from pesticides, plastics and other chemical runoff (FAO, 2014b; FAO, 2020a).

### 2.4 Minimize agricultural chemical inputs

The global growth of agricultural production has been achieved mainly through the intensive use of inputs, such as chemical fertilizers and pesticides (FAO and IWMI, 2017). Mineral fertilizers have been used since the nineteenth century, but the use of fertilizers has increased by dramatically in recent decades. The global annual consumption of nitrogen (N) and phosphorous (P) fertilizers from 1991 to 2013 have increased approximately nine and four times, respectively, while the use of N and P fertilizers per unit land has increased by approximately eight and three times, respectively (Lu and Tian, 2017). In 2013, the top five fertilizer-consuming countries (China, India, the US, Brazil and Pakistan for N fertilizer, and China, India, the US, Brazil and Canada for P fertilizer), together accounted for 63 percent of the global fertilizer consumption (Figure 11). However, it is important to note the large regional differences, and while the average global application of NPK fertilizer is 135 kg/ha, only 17 kg/ha is applied in sub-Saharan Africa, increasing from 8–9 kg/ha in 2006 (AGRA, 2019).

A similar trend can be observed for pesticides, where the total pesticide use from 1990 to 2018 has increased from approximately 2.5 million tonnes to 4.1 million

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**Figure 10. Annual rate of forest expansion and deforestation, 1990–2020**

tonnes, corresponding to an increase in pesticide use per area of crop land from 1.80 kg/ha to 2.66 kg/ha (FAO, 2021e). However, there are large regional differences, with Asia being the top contributor to global pesticide use, accounting for more than 50 percent of the world’s total in 2018 (Figure 12).

Most of the agrochemicals (i.e. pesticides and chemical fertilizers) negatively affect soil microbial functions and biochemical processes. The alteration in diversity and composition of the beneficial microbial community can be unfavourable to plant growth and development by causing an imbalance in soil, reducing nutrient availability and increasing disease incidence (Meena et al., 2020).

Acute pesticide poisoning causes significant human morbidity and mortality worldwide, especially in developing countries, where poor farmers often use highly haz-
ardous pesticide formulations. Pesticide accumulation in soil, water and the food chain, with demonstrated negative effects on humans, led to the widespread banning of certain broad-spectrum and persistent pesticides (such as DDT and many organo-phosphates), but some are still used in poorer countries, causing acute and likely chronic health effects. The trend has been amplified by the expansion of agricultural land, with irrigation playing a strategic role in improving productivity and rural livelihoods while also transferring pollution to water bodies. Overuse and inappropriate use of chemical inputs have negative health and environmental impacts and induce economic loss (Sarkar et al., 2021).

Management measures for reducing the risk of water pollution due to inorganic fertilizers and pesticides include limiting and optimizing the type, amount and timing of applications to crops, and the promotion of alternatives to chemical pesticide and fertilizers, e.g. IPM and the use of bio-pesticides and organic fertilizers. Furthermore, Conservation agriculture has been demonstrated to maintain and restore soil health and biomass, thus reducing the need for chemical fertilizers. Establishing protection zones along surface watercourses within farms and in buffer zones around farms, have been shown to be effective in reducing pollution migration into water bodies. Also, efficient irrigation schemes will reduce water return flows and can, therefore, greatly reduce the migration of fertilizers and pesticides into water bodies (Mateo-Sagasta and Burke, 2010).

Figure 12. Regional pesticide use per cropland and their absolute amounts, 1990–2018

Since plastic films were introduced to agricultural production in the 1960s, plastic use has become an integral part of the agrifood systems. FAO estimated that, every year, 12.5 million tonnes of plastic products are used in plant and animal production, 37.3 million tonnes used in food packaging, and the use of plastic films is projected to increase by about 50 percent in the next decade (FAO, 2021i). Despite increased crop yield and water use efficiency from plastic mulching, accumulated chemical pollution in the soil reduces crop yields over time. Hence, improved technologies for recovering residual agrochemicals are required to protect the environment and to create long-term sustainable productivity gains (Gao et al., 2019). Furthermore, the storage and disposal of pesticide waste, empty containers and waste agricultural plastics must follow safety guidelines (WHO & FAO, 2008).

Overuse and misuse of chemical inputs or medicinal drugs (e.g. antimicrobials) in animal and plant production can cause significant threats to human health. An example of this is antimicrobial resistance (AMR), which is the ability of microorganisms (such as bacteria, fungi, viruses and protozoan parasites) to persist or grow in the presence of drugs (antimicrobials) that are designed to inhibit or kill them (FAO, 2020f). AMR is a major global threat of increasing concern to human and animal health. It also has implications for food safety, food security and the economic wellbeing of farming households. In the context of plant production, some pesticides are used as antimicrobial substances, and there is growing concern that some of those select for AMR among pathogens important to plant, human and animal health. It is indispensable to strengthen the technical guidelines, implement good agricultural and production practices, biosecurity, infection control and an effective IPM approach, thereby reducing the need for use for antimicrobials (FAO, 2020f). An ecosystem approach is also important as an effective framework for integrating conservation and sustainable utilization objectives, and to engage farming communities directly in the decision-making process (FAO, 2021g).

International agreements, e.g. the Rotterdam Convention and the International Code of Conduct on Pesticide Management have garnered much attention in terms of the increased awareness and management of highly hazardous pesticides, and can support the FAO Members to manage the lifecycle of pesticides, make informed decisions on chemical inputs and facilitate knowledge exchange on alternative solutions.

2.5 Mitigate and adapt to the effects of climate change

Agrifood systems contribute to climate change and, at the same time, suffer the consequences of climate change. Hence, according to FAO (2021h), emissions from agrifood systems increased globally by 16 percent between 1990 and 2019, but their share in the total emissions has decreased from 40 percent to 31 percent. However, variation exists between studies, and according to WWF (2020), around 27 percent of the global GHG emissions are caused by the food system (Figure 13), while the Intergovernmental Panel on Climate Change (IPCC) estimated that between 21 –37 percent
of the total GHG emissions are attributable to the food system, including i) crop and livestock activities within the farm gate (9–14 percent); ii) land use and land-use change (5–14 percent); and iii) food processing, retail and consumption patterns, including upstream and downstream processes, such as the manufacturing of chemical fertilizers and fuel (5–10 percent) (Mbow et al., 2019).

Mitigation and adaptation measures need to be addressed as crop yields suffer from a high variability due to extreme and persistent weather events affecting rainfall and temperature. In absence of storage and post-harvest management facilities, the variable and extreme weather pattern (heat and rainfall) leads to a loss of harvested crops in particular perishable products, such as fruits, vegetables and animal products. The consequences of floods and droughts due to climate change are particularly serious for developing countries, with more frequent, more widespread and stronger events taking place.

In the Global South, the countries that are most vulnerable to climate change might need additional support in creating long-term sustainable and resilient agrifood systems capable of feeding growing populations. In many countries, farmers and researchers are already working together to explore which tree provenances, crop varieties and animal breeds, and which combinations of them, fit best to local conditions and are most resilient against stressors (FAO 2017; FAO, 2021f).
In relative terms, about 11 percent of total cropland and 14 percent of pasture-land experience recurring droughts, while more than 60 percent of irrigated cropland is highly water-stressed (FAO, 2020e). In 2021, droughts significantly affected agriculture in many regions around the globe, underscoring the need for urgent action to ensure that water is managed sustainably. In the absence of such action, the rising demand for water and the increasing effects of climate change risk worsening the situation.
3. Overall objectives

The OCOP is designed to support countries to produce more with less through innovative, evidence-based solutions and sustainable approaches, and by considering the interlinked economic, social and environmental dimensions of agrifood systems. The OCOP has the following four overall objectives:

3.1 Facilitate the development of sustainable and inclusive value chains for family farming and smallholders

Farmers, livestock keepers, forest dwellers, fish farmers and fisherfolk are managers and custodians of biodiversity. Smallholders of less than 2 hectares make up about 84 percent of all farms worldwide but manage only 12 percent of all agricultural land (Lowder et al., 2021). However, on average, they have higher yields and harbour greater biodiversity than larger farms (Ricciardi et al., 2021). Producing 80 percent of the world’s food in value terms (Lowder et al., 2021), family farms are an essential link for the scaling and uptake of innovations in agriculture (FAO, 2014c).

The OCOP will advocate and promote the diversification and integration of agrifood systems and stimulate sustainable development and market opportunities for small-scale agriculture, while not excluding larger-scale farmers. The OCOP will do so by placing the production models of smallholders and family farming at the centre of interventions, leveraging their unique potential. The OCOP will also provide tailored support to countries to promote the development of family farming and the sustainable improvement of livelihood of rural communities in line with the UN Decade of Family Farming 2019–2028.

3.2 Support the Members through the implementation of the Country Programming Frameworks

By assisting FAO Members, the OCOP will help countries boost their agricultural production and improve rural livelihoods by strengthening value chains of selected SAPs. It will also assist countries, where needed, in formulating the UN common country analysis (CCA) and implementing the UN Sustainable Development Cooperation Framework (UNSDCF).

The OCOP will also help countries to identify specific opportunities adapted to their agro-ecological production systems and national or cultural heritage, while sustainable production will be ensured by supporting the development of technical and institutional capacities as well as attracting investments for further development of markets.

The OCOP serves the FAO mission of supporting Members to implement their FAO Country Programming Frameworks (CPF) more efficiently, representing a
key entry point to assist them reaching their defined priorities and contribute to the Regional Initiatives. Hence, helping countries to address the national strategies to reach SDG targets, particularly to achieve SDG 1 (no poverty), SDG 2 (zero hunger) and SDG 10 (reduced inequality).

3.3 Strengthen the implementation of the FAO Strategic Framework 2022–2031

By supporting the transformation to more efficient, inclusive, resilient and sustainable agrifood systems, the OCOP will deliver results of key PPAs of the FAO Strategic Framework 2022–2031. It will contribute to fulfil the agreed aspirations of the FAO Four Betters: better production (BP), better nutrition (BN), a better environment (BE) and a better life (BL) (Figure 16 in Chapter 6). Specifically, it will contribute to the following PPAs: **BP1** (Innovations for sustainable agriculture production); **BP2** (Blue transformation); **BP3** (One health); **BP4** (Small-scale producers’ equitable access to resources); **BP5** (Digital agriculture); **BN1** (Healthy diets for all); **BN5** (Transparent markets and trade); **BE1** (Climate change-mitigated and -adapted agrifood systems), **BE3** (Biodiversity and ecosystems services for food and agriculture); **BE4** (Achieving sustainable urban food systems); **BL1** (Gender equality and rural women’s empowerment; and **BL2** (Inclusive rural transformation).

3.4 Contribute to achieving the UN SDGs for the 2030 Agenda

By promoting green innovations for sustainable agricultural production to increase resilience and inclusion in food systems, the OCOP will primarily contribute to achieving **SDGs 1, SDG 2 and SDG10** (Figure 16 in Chapter 6). By addressing other aspects of the CPFs, it will contribute to other SDG targets, such as good health (SDG 3), decent work and economic growth, especially for youth and women (SDG 5), clean water and sanitation (SDG 6), reduce food and biodiversity loss, reverse land degradation, mitigate to the effects of climate change (SDGs 13 and 15), as well as sustainable consumption and production (SDG 12).

The OCOP has been designed to support the transformation to more efficient, inclusive, resilient and sustainable agrifood systems, not only by reducing hunger, malnutrition and poverty, but also by minimizing the negative impacts on ecosystems, the exacerbation of natural resources, environmental pollution, ecological degradation and vulnerability to climate change.

These also include the reduction of food loss, GHG emissions, biodiversity and inequality under a changing climate. Therefore, there is a need for shifting paradigms and for a holistic approach to convert the existing agrifood systems by creating new solutions and finding smarter as well as science- and evidence-based solutions to produce more with less, thereby contributing to the achievement of the SDGs.
4. Key principles

The OCOP has been collaboratively developed and will be implemented through the application of the following five major principles.

4.1 A collaborative design and country-led implementation

The development of the OCOP has been led by a Task Force at the FAO headquarters through a series of consultations in collaboration with the FAO Decentralized Offices (DOs) and the relevant stakeholders. The focus is on supporting countries in the selection of SAPs recognized for their national or more localized significance.

The implementation of the OCOP at country level will be led by the participating Members with support from the FAO at a country and regional offices and headquarters. All relevant stakeholders of the agrifood sector industries, research, academia, extension, business, as well as NGOs, private sector, civil society and resource partners at the global, regional and national levels, are encouraged to be engaged in supporting the implementation of the OCOP.

4.2 A demand-driven and comparative advantage-oriented approach

All Members are encouraged to join the OCOP based on their own demand, priority and comparative advantage as well as their potential at the global, regional and national levels. While each country can select one priority SAP, which will be supported and coordinated by FAO, following the guideline for resource allocation and share of contributions provided through FAO as indicated in Chapter 7.1, it is possible for Members to use this platform to target additional SAPs, although fully covered through their own funding or other sources (1+N model). Selected SAPs should be adapted to local taste, agro-ecological and production systems, social characteristics, national or cultural heritage and market access potential.

4.3 Integrating production within the value chain approach

The OCOP is shaped around four thematic areas (further described in Chapter 5), representing different steps in the value chain process, including: i) green production; ii) green storage; iii) green processing; and iv) green marketing. While the main focus of the OCOP is on production, the other thematic areas of the local food systems will also be considered. Initially, each country will be invited to select a maximum of three thematic areas, of which one must be production. More selections can be allowed depending on the budget allocation and funding opportunities.

The focus of the OCOP is to guide small-scale farmers to participate in the value chain development of selected SAPs, and to take advantage of the linkages and syn-
ergies of the value chain. The key approach is to improve small-scale farmers’ capabilities on production and business management.

4.4 An approach centred on agro-ecological regions and production systems to promote green technologies

The OCOP will mainstream the development of the SAPs into three agro-ecological regions including i) tropics; ii) drylands and iii) mountainous regions; and six product categories including, i) food crops; ii) cash crops; iii) horticulture crops; iv) forestry products; v) livestock and vi) fishery. Each country will identify and promote the development of its SAP in the most adapted agro-ecological regions.

The implementation of the OCOP is planned across two phases. The first phase of support will focus on the green development of plant product types of SAPs: Food crops, cash crops, horticultural crops and forestry products. After gaining experience through the piloting of the first phase, especially in critical and highly complex areas, such as food safety and sanitation, the second phase will include the green development of livestock and fishery SAPs.

Within the selected thematic areas of the chosen SAP, green technologies will be applied by innovation, integration, demonstration, extension and scaling up of green production, storage and processing technologies and innovations as well as the relevant green standards and SOPs. The green market access will be extensively developed and facilitated by creating a green enabling environment (regulation and policy).

4.5 A multidisciplinary approach and engagement with different stakeholders

The OCOP will serve as a large cooperation platform that includes governments, industries, research, extension, NGOs, private sector, financial organizations and development partners. The OCOP will be supported through the establishment of innovation and transformation networks, which will be composed of all relevant disciplines of science and engineering, covering the four thematic areas and six product categories, including e.g. biotechnology, agronomy, plant protection, soil and plant nutrition, mechanization, economics and market information and development as well as information and digital technologies.

In general, the OCOP features four areas of inclusiveness: i) country-inclusive – all FAO Members are encouraged to join the OCOP; ii) product-inclusive – the priority lies with plants, but will, in the second phase, also include other types of agricultural products; iii) value chain-inclusive – the priority is on production, but can include additional aspects (thematic areas) of the food system, such as storage, processing and marketing; and iv) stakeholder-inclusive – all relevant stakeholders are encouraged to build partnerships, exchange knowledge and disseminate innovations.
5. Thematic areas for value chain coverage

The OCOP include four thematic areas covering the complete value chain process: i) green production; ii) green storage; iii) green processing; and iv) green marketing, each comprising a number of key elements (Figure 14) and a comprehensive, but not exhaustive Technical Guideline. The technical guideline has examples of green practices, technologies and innovations of the plant product SAPs that are included in the first phase of the OCOP and serve as a guideline for the Members (see Appendix 1). The technical guideline of the other two product types of SAPs (livestock and fishery) will be formulated separately, when preparing for the second phase of the OCOP.

Each Member is encouraged to mainstream the green production, storage, processing and marketing of the selected SAPs by integration, demonstration, extension and scaling up of a series of green production technologies, innovations and green enablers. The green enablers should focus on revision, formulation, improvement and large-scale demonstration and extension of the related green standards and SOPs as well as the relevant supporting policies, while complying with the requirements and rules of international trade, including tax reduction and exemption policies, financial support, export guarantee and trade facilitation policies.

5.1 Green production

Green production covers the entire process of plant production, from planting (seedling and planting stock) to harvesting, which will develop and promote green technologies covering the following key elements: i) variety and seed; ii) crop management; iii) integrated pest prevention and management; iv) soil, fertilizer and water management, and v) agricultural mechanization and digitalization (see Appendix 1 for examples of green technologies and innovations).

5.2 Green storage

Green storage covers all stages involved in preparing and handling the SAPs from harvest to the place of storage, including transporting the harvest from the farm to the place of storage, post-harvest handling and treatment to prepare the SAPs for storage, packaging into storage containers or structures, pre-cooling and storage of the products (including storage of processed SAPs) until marketing and consumption. Storage is often the hot-spot for food losses, in particular for fruits, vegetables, root and tubers. Technologies covering the following key elements will be developed and promoted: i) post-harvest handling and treatment; ii) sorting and packaging; and iii) low-carbon storage for harvested SAPs (see Appendix 1 for examples of green technologies and innovations).
5.3 Green processing

Green processing covers the development of low-carbon, high-quality and standardized processing systems, during which the SAPs are graded and packaged to avoid spoilage, breakage, moisture damage as well as facilitate handling and marketing. Members are urged to consider a circular model of “resources-processing-products-resources” (e.g. through the use of food chain residues to produce bio-energy, bio-fertilizers and other bio-products). Technologies covering the following key elements will be developed and promoted: i) on-site processing; ii) low-carbon and high-efficiency processing; and iii) by-product value addition processing (see Appendix 1 for examples of green technologies and innovations).

5.4 Green marketing

Green marketing is the process to promote and realize the market value potential of selected SAPs based on a green price mechanism, market facilitation and an optimized sales and branding strategy (see Appendix 1 for examples of green technologies and innovations).
6. Results of global action

6.1 Theory of Change (ToC)

The Theory of Change of the OCOP considers several challenges (drivers for change) which are facing global agrifood systems today, including a rapidly growing population, increasing food demands, changing consumer patterns towards resource-intensive food products, such as meat and dairy, but also towards greener products, malnutrition, poverty, inequality and environmental concerns (e.g. biodiversity loss, soil and land degradation and climate change). All of these were exacerbated by the COVID-19 pandemic (Figure 15). Following that, the ToC will tackle these overarching challenges by addressing the main barriers to progress, including a lack of innovative technologies, stagnating yields of major crops, unsustainable agrifood value chains based on just a few crops, the excessive use of agrochemical inputs, high food losses in the production and post-harvest stages, high GHG emissions resulting in an increasing environmental footprint of agrifood systems and a lack of awareness among consumers.

Accordingly, the ToC, foresees the removal of these barriers, through a range of targeted actions, resulting in a number of outputs, including the development of technical networks for innovation, green technologies, enablers (policies, strategies and standards), market access platforms fostering cooperation and an efficient coordination and collaboration mechanism. This will result in a range of outcomes aligned with the Four Betters and PPAs of the FAO Strategic Framework, leading to improved agrifood systems, including more efficient, inclusive, sustainable, resilient and diverse value chains of SAPs. Throughout the intervention, the active participation, collaboration and interaction of a wide range of stakeholders representing the diverse segments of the value chains is paramount for the successful implementation of the OCOP.

6.2 Impact

The impact of the OCOP is that agrifood systems are improved and more sustainable, while market opportunities increased for smallholders and family farms, through the development and integration of more efficient, inclusive, sustainable, resilient and diverse value chain of SAPs.

6.3 Outcomes

The four key outcomes of the OCOP support the countries to contribute to the aspirations of the Four Betters and PPAs of the FAO Strategic Framework as well as the UN SDGs for the 2030 Agenda (Figure 16):
i. **Productive and resilient production systems are created.** Productivity increased by 5–15 percent, crop and food loss/waste reduced by 10–30 percent and value addition by 30–50 percent through the processing of selected SAPs. The coordination capacity of local governments to promote better and green agriculture development is significantly increased as well as the technical capacity of smallholder/family farmers and extension service providers in applying green standards and SOPs (*contributing to better production*).

ii. **Food security, improved nutrition and affordable healthy diets are ensured.** Increased quality, safety and diversity of selected SAPs, in combination with fair and efficient market access and trade (*contributing to better nutrition*).

iii. **The environment is substantially improved.** The use of agricultural inputs (chemical pesticides and fertilizers, plastic film and medical drugs) is reduced by 10–30 percent, and systems for their sustainable and circular management at end-of-life is established, as well as reduced GHG emission, water use, land degradation and biodiversity loss (*contributing to a better environment*).

---

**Figure 15. Theory of Change of OCOP**

Source: Author’s compilation
iv. **Inclusive economic growth is ensured.** Livelihood of smallholder and family farmers improved through the creation of decent jobs and an increased income by 30–50 percent as well as an increased involvement of different ethnic and social groups, youth, girls and women in promoting the OCOP (*contributing to a better life*).

### 6.4 Outputs

Depending on the selected thematic areas and the availability of resources, **three to five** of the below **expected outputs** will be produced for each participating Member in an inclusive and collaborative manner.

i. **Technical networks for innovation and transformation of the green development of SAPs are established.** The OCOP will support the establishment of a technical network for the innovation and transformation of the green development of SAPs in each participating country. The network will be composed of 3–5 pilot sites per country for several countries. The established network will play a key role in promoting the implementation of the OCOP through the integration, demonstration, extension and scaling up of green technologies, standards and enablers.

ii. **Technologies for the green development of SAPs are disseminated.** The OCOP will facilitate the development of technologies for the green development of SAPs, based on research and local priorities and knowledge which would be made available during all stages of the value chain process, including the thematic areas of production, storage, processing and marketing. Although each pilot country will be invited to select a maximum of three thematic areas (e.g. one country will focus on production, storage and processing, while another may focus on production, processing and marketing), the technical network for the innovation and transformation will allow for synergies and lessons learned from all countries, covering all thematic areas.

iii. **Enablers for the green development of SAPs are formulated and applied.** To facilitate for the green development of selected SAPs, the OCOP will support the countries’ initiatives in fostering an enabling environment through the development and implementation of appropriate green enablers (policies, strategies and standards), covering the thematic areas of production, storage, processing and marketing. Support will be provided to carry out studies and reviews as well as improve and harmonize the relevant national legislation to establish an enabling environment for the promotion of SAPs.

iv. **Effective market access platforms for the green development of SAPs are formulated.** Market platforms will be developed and promoted at national, regional and global levels to facilitate the exchange of knowledge, practices and information on the green development and marketing of SAPs and to foster regional and international cooperation for countries and local actors. These platforms will share lessons learned and make available the resource, education material and case studies from different scenarios.
v. **An efficient coordination mechanism for the green development of SAPs nationwide is established.** An efficient nationwide coordination and communication mechanism will be established through the implementation of the OCOP. The key mechanism will include the effective communication and coordination of governments using a multidisciplinary and multistakeholder approach.

**Figure 16. The four outcomes of the OCOP and their related PPAs and SDGs**

7. Budget and activity planning

7.1 Budget planning

The Resource Mobilization Plan will be developed for the implementation of OCOP. The resources will be mobilized at the global, regional and national levels by synergizing internal and external funding sources and other forms of support. FAO will coordinate with Members to actively mobilize resources, taking into account the national planning cycles, agricultural seasonality and the protracted impact of the COVID-19 crisis. In order to seek national buy-in and ownership, the share financed by FAO will depend on the country’s socioeconomic development status.

Financial resources will be mobilized from donors, such as United States Agency for International Development (USAID), Japan International Cooperation Agency (JICA), European Union, African Development Bank (AfDB), Asian Development Bank (ADB), Islamic Development Bank (IsDB), World Bank (WB), European Bank for Reconstruction and Development (EBRD), Global Environment Facility (GEF), Green Climate Fund (GCF) across individual countries and regions. Government-supported and partnership programmes will assist in the demonstration and upscaling of action steps across other regions.

Moreover, technical synergies will be established with internal initiatives (the UN and FAO global programmes and initiatives) and with external partners (global, regional and national development agencies).

The Resource Allocation to the participating countries will be conducted following the share of contribution provided through FAO contributions to the overall budget in four groups of countries based on the UN country classification (UNCTAD, 2021; UN, 2021c):

i. least developed countries: 80–90 percent project funding, while at least 10 percent is co-funded;
ii. other developing countries: 60–70 percent project funding, while at least 30 percent is co-funded;
iii. economies in transition: 20–30 percent project funding, while at least 70 percent is co-funded; and
iv. developed economies: up to 10 percent project funding, while at least 90 percent is co-funded.

Expected co-funding from the countries may vary depending on the project and funding types. Countries can provide financial/budgetary support or provide in-kind contributions to the integrated budget (assessed and voluntary contributions) to support the achievement of the expected outputs of the project. The contribution
may include the expertise and capacities of the government and the national counterparts, local expenses related to the implementation of field activities (e.g. providing venues for the in-country workshops, trainings and discussions, local transportation and other travel expenses, etc.). It is important to discuss, agree and document the contributions that help develop a realistic budget.

7.2 Activity planning

The OCOP has been designed as a **five-year programme** (2021–2025) with major activities and impacts as follows (Figure 17).

- **2021: Planning activities**

  Formulating and adapting the OCOP, organizing a global launch event, establishing coordination mechanisms at global, regional and national levels, operationalizing the OCOP, planning regional launch events and other activities.

- **2022–2023: Implementing pilot projects**

  Developing the resource mobilization plan and communication strategy, establishing internal and external technical synergies, organizing the regional launch events, conducting studies, assessments, technical workshops and discussions, defining the pilot countries, SAPs and green technologies, integration, demonstration and validation of green development practices for the selected SAPs in pilot countries, organizing trainings, enhancing communication and outreach.

![Figure 17. Major activities and impact of the OCOP](image)

Source: Author’s compilation
• **2023–2024: Dissemination, extension and scaling-up**

Demonstration of the green development of SAPs in pilot countries, carrying out capacity development activities, monitoring, reporting, planning the scale-up, including defining potential additional SAPs, mobilizing resources and enhancing communication.

• **2025: Exit strategy**

Advocacy and conclusion of the OCOP activities in the pilot countries, supporting countries to scale-up the OCOP outputs, developing the exit strategy to gradually reduce FAO’s support and increase the country’s ownership for further promotion of SAPs and green innovations.
8. Coordination and implementation

8.1 Organizational structure and coordination mechanism

An effective organization and coordination mechanism is being established for implementing the OCOP at three levels.

At global level a **Steering Committee** (SC) has been set up at the FAO headquarters to oversee the implementation of the OCOP. The SC is chaired by FAO DG and composed of the relevant senior co-leaders and directors of divisions/centres/offices as well as relevant observers. The SC will be supported by **three subsidiary groups**, including the Scientific Advisory Group (SAG), Resource Mobilization Group (RMG) and the OCOP Secretariat. In particular, the SC is responsible for the following activities:

i. **Organize, plan, supervise, monitor and report** on the implementation of the OCOP.

ii. **Link** the OCOP activities with the FAO Strategic Framework, global initiatives and programmes.

iii. **Coordinate** the OCOP activities globally, review, approve and endorse the proposals, strategic documents, communication materials, pilot countries and priority SAPs.

iv. **Provide technical advice, support and guidance** to FAO Members, FAO divisions and Decentralised Office on the implementation of the OCOP.

v. Establish **technical synergy**, develop the resource mobilization plan, establish partnership and support the resource mobilization for successful implementation of the OCOP.

vi. Develop **communication plan, promote, outreach and encourage FAO Members** to join the OCOP and develop market access for SAPs at the global level.

vii. Establish an efficient **internal management** to enhance collaboration between the subsidiary groups.

At regional level, a **Regional Organizing Group** (ROG) will be established in each region to organize the implementation of the OCOP within the region. The ROG will be led by the FAO Regional ADG and composed of relevant members from Regional Office, and FAO Representatives of participating countries in the region. Under the ROG, a **Regional OCOP Working Team** will be formulated to take care of the daily matters. If needed, a working group can be established to provide technical support.

In particular, the ROG will be responsible for the following activities at the **regional level**:
i. Organize, coordinate and support the planning of the implementation, monitoring and reporting of the OCOP at the regional level.

ii. Link and align the OCOP with the regional priorities and initiatives, FAO Strategic Framework, global programmes and initiatives, SDG targets and indicators.

iii. Coordinate closely with the OCOP Secretariat and the National Task Forces (NTF) and facilitate collaboration between the FAO headquarters and the participating countries in the region for the efficient implementation of the OCOP.

iv. Provide technical advice, support and guidance in implementing activities under the OCOP.

v. Enhance partnership and resource mobilization at regional level.

vi. Promote communication, outreach and develop market access for SAPs at the regional level, review and submit to the OCOP Secretariat the proposals, strategic documents, communication materials and normative products.

vii. Establish an efficient internal management mechanism for planning, coordination, implementation, monitoring and reporting at the regional level.

At country level, a NTF will be set up in each participating country to carry out the implementation of the OCOP in its country, which will be led by the Senior Officer of the responsible Ministry and composed of the relevant members from different departments and the Senior Officer from FAO Country Office. Under NTF, a National OCOP Working Team will be formulated to take care of the daily matters. If needed, a working group can be established to provide technical support. In particular, the NTF will responsible for the following activities at the country level:

i. Organize, coordinate and support the planning, implementation, monitoring and reporting of the OCOP at the national level.

ii. Link and align the OCOP with the Country Programming Framework, Regional Initiatives, FAO Strategic Framework, global programmes and initiatives, UN country programmes, SDGs targets and indicators.

iii. Provide technical support, advice and guidance to the country in implementing projects and activities for the green development of SAPs.

iv. Coordinate closely with the Regional Organization Group and facilitate collaboration between the Regional Office and the participating country on OCOP.

v. Enhance partnership and resource mobilization at the national level.

vi. Promote communication, outreach and develop market access for SAPs at pilot country as well as review and submit to the ROG the proposals, strategic documents, communication materials and normative products.

vii. Establish an efficient internal management mechanism for planning, coordination, implementation, monitoring and reporting at the national level.
8.2 Internal synergies and external collaboration

The Internal Synergies at the three levels will support and contribute to the OCOP:

i. **Link with FAO and UN programmes.** The OCOP has close links with all the relevant programmes of FAO as well as other relevant UN agency initiatives. Synergies will be sought with the Technical Cooperation Programme (TCP), South-South Cooperation Programme, Geographical Indications, Global Programme on Sustainable Dryland Agriculture, Globally Important Agricultural Heritage Systems (GIAHS), Fall armyworm (FAW) control, UN Decade on Ecosystem Restoration and the UNFSS processes.

ii. **Link with FAO initiatives.** The OCOP has close links with all the relevant FAO initiatives and synergies, will be sought with the prioritized initiatives, e.g. Hand in Hand Initiative (HiHI), Green Cities Initiative (GCI), 1 000 Digital Villages, Low Carbon Commodities, the EX-Ante Carbon Balance Tool (EX-ACT) suite of tools and the Tool for Agroecology Performance Evaluation (TAPE). FAO will build on existing initiatives to foster collaboration among all stakeholders for the development of policies and capacities in agriculture FVCs.

iii. **Building technical synergies.** The relevant FAO Divisions, Centres, Offices and Units will be actively engaged to build technical synergies on existing and potential initiatives and programmes to support and contribute to the implementation of the OCOP. The FAO structure with dedicated programs and cross-cutting priority issues, in combination with its network of country and regional offices, is the source provides an extensive and comprehensive resource of institutional capacities and knowledge, which the OCOP will tap into through consultation meetings, shared workshops and lessons learned exercises. The recent emergence of virtual events and meetings will add to the frequency and effectiveness of the synergy- and linkage-building with other programs and initiatives.

The **External Collaboration** in the three major areas will be promoted and facilitated to implement the OCOP through:

i. **Technical cooperation.** Various technical resources will be mobilized from research and training institutions as well as technical products from the private sector.

ii. **Financial resources.** Fundraising will be carried out at global, regional and national levels, such as HiHI, South-South Cooperation Programme, Technical Cooperation Programme, Green City Initiative, and through donations from financial institutions, development organizations, foundations, NGOs, and the private sector.

iii. **Human capacity.** Various types of in-kind contributions of human resources are welcomed in supporting and contributing to the implementation of the OCOP at national, regional and global levels.
8.3 Communication and outreach

Communication plan will be formulated to engage various media sources worldwide for raising awareness of the importance, progress, achievements and the way forward for implementing the OCOP. Accordingly, the outreach activities will be performed at the relevant time at all levels (global, regional and national).

A concluding congress will be held at the global level in 2025 to conclude the last year of implementation.

All kinds of relevant media sources at various levels will be explored to actively promote the implementation of the OCOP with a focus on three major activities:

i. **Awareness-raising** should focus on the importance of the OCOP in contributing to the SDG, FAO’s Strategic Framework 2022–2031, Members’ CPFs and farmers’ livelihoods.

ii. **Knowledge and information dissemination** should focus on progress, achievements, experience and lessons learned in implementing the OCOP.

iii. **Promotion and facilitation of market access and efficient trade** of the green SAPs should be conducted at local-community, national, regional and global levels.
9. Guideline on country project application for the implementation of the OCOP

The project proposals submitted to FAO by the Members should be in a form of a Concept Note (Appendix 2) and be aligned with the Country Programming Frameworks (CPF). They should also be linked to the Regional Priorities, the FAO Strategic Framework 2022–2031, the UN SDGs and other relevant FAO initiatives and programmes.

9.1 Guiding principles

i. **Participation of countries**: All countries are eligible to join the OCOP based on their own demand and comparative advantage, while the priority will be given to those located in tropical, dryland and mountainous regions.

ii. **Number of supported SAPs**: Only one SAP will be supported in each country, while following the guidelines for resource allocation and share of contributions provided through FAO. More selections can be allowed when fully covered through the country’s own funding or from other sources (1+N model).

iii. **Type of selected SAPs**: Plant products (food, cash, horticulture and forest) will be supported in the first phase, while animal products (livestock, aquaculture and fishery) will be supported in the second phase.

iv. **Area of support**: A maximum three thematic areas will be supported, of which production has to be included. For the remaining thematic areas, countries can choose between storage, processing and marketing, according to their needs and demands. More selections can be allowed through the country’s own funding support or from other sources.

v. **Financial support**: The amount of financial support to the given country from FAO will be determined based on the UN country classification and the country’s own funding. Other funding sources should be included (please refer to Chapter 7.1).

9.2 Main content

The main content of the country project proposal is provided in Appendix 2, including sections 1–8. Please make a clear description of each section and subsection based on the information requested in each part, especially the rationale (Section 2), the expected results (Section 3), the major activities (Section 4), the support requested (Section 5), and the organization and coordination (Section 8). In the technical areas, the country project proposal should focus on integration, dissemination, extension and outreach of green technologies and enablers (Section 4.1–4.4).

The implementation of the country project should be led by the NTF with an affiliated National OCOP Working Team (Section 8). The NTF should take full responsibility for
implementing the OCOP in the country together with the relevant local government, and make effective coordinations and communications with the Regional Organizing Group and the OCOP Secretariat in the FAO headquarters.

9.3 Submission and approval of application procedure

The official request for any project support along with the Concept Note (Appendix 2) should be submitted by the Government to the FAO Country Office for confirmation (Figure 18).

The FAO Country Office will submit the confirmed Concept Note to the FAO Regional Office for review, evaluation and prioritization after which it will be forwarded to the OCOP Secretariat at the FAO headquarters for consolidation. The OCOP Secretariat will then submit the consolidated Concept Note to the OCOP Steering Committee for approval.

Figure 18. Submission procedure for the OCOP

Source: Author’s compilation
References


### Appendix 1: Technical Guideline for Thematic Areas

1. **Thematic area one: Green Production – key elements and examples of technologies and innovations**

<table>
<thead>
<tr>
<th>Key element</th>
<th>Green Production: Examples of technologies and innovations</th>
</tr>
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</table>
| **Variety and seed technology** | i. Seed, seedling and asexual planting stocks production technologies for the improved plant varieties’ *in-situ* propagation as well as purification, improvement and rejuvenation of traditional varieties.  
ii. Green treatment technologies in seed coating, virus-free seed (seedling) production (e.g. potato, grape wine, etc.) and seedling grafting.  
iii. Efficient and appropriate-scale seedling nursery technology. |
| **Crop management technology** | i. Diversified cropping system, such as intercropping, three-dimensional planting and crop rotation.  
ii. Soil health management and CA with key principles (no-till, diversification of cropping systems and soil coverage with organic biomass (e.g. crop residue, cover crops, green manure) integrated with other GAP (e.g. IPM, precision application of fertilizers, pesticides, subsurface irrigation, subsoiling, intercropping, CSA, agro-ecological production practice, etc.).  
iii. Agro-ecological production and farmland management, such as agroforestry, living fences and ecological intercept ditch.  
v. Protected cultivation for disaster prevention and mitigation, such as resistance to lodging and wilt, heat and cold, pest, drought and waterlogging.  
vi. Circular practices linked to the concept of a bioeconomy, for instance nutrient recycling and reuse at farm level, or alternatives to agricultural plastics. |
| **Integrated technologies for plant pest prevention and management** | i. Phytosanitary, plant health and inspection of quarantine plant pests.  
ii. Monitoring and forecasting of major plant pests.  
iii. Green and efficient integrated management of key plant pests, including pest-resistant varieties, biological control, physical control, physical and chemical trapping, plant immune inducer, crop management control, ecological control, and chemical control.  
iv. Application of biological and low-toxic pesticides and high-efficiency spraying equipment. |
### Integrated technologies for soil, fertilizer and water management

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<tbody>
<tr>
<td>i.</td>
<td>Soil management for improving soil fertility, health, regulation, carbon sequestration and remediation.</td>
</tr>
<tr>
<td>ii.</td>
<td>New types of high-efficiency fertilizers, such as controlled release fertilizers with biodegradable polymer coatings, microbial fertilizers, biological fertilizers, biochar as a by-product from the gasification of agricultural and forestry residues and growth regulators.</td>
</tr>
<tr>
<td>iii.</td>
<td>High-efficiency fertilization, such as real-time diagnosis, balanced fertilization and mechanized deep application.</td>
</tr>
<tr>
<td>iv.</td>
<td>Efficient water management, such as real-time monitoring, water-saving irrigation and fertigation.</td>
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### Agricultural mechanization and digitalization technology

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<tbody>
<tr>
<td>i.</td>
<td>Precise and lean land preparation.</td>
</tr>
<tr>
<td>ii.</td>
<td>High-efficiency no-tillage precision seeding and seedling transplanting, spot weeding (with robots at pilot scale) and precise application of fertilizer.</td>
</tr>
<tr>
<td>iii.</td>
<td>Precision irrigation, precision pesticide application, intelligent harvesting, including possible use of autonomous combine harvesters (if applicable), as well as related appropriate machinery and equipment.</td>
</tr>
<tr>
<td>iv.</td>
<td>Mutual integration of relevant agricultural machinery, agronomy and digital applications.</td>
</tr>
<tr>
<td>v.</td>
<td>Integrated agricultural mechanization hiring service and new business models, while strengthening the private sector’s participation at all levels.</td>
</tr>
</tbody>
</table>
2. Thematic area two: Green Storage – key elements and examples of technologies and innovations

<table>
<thead>
<tr>
<th>Key element</th>
<th>Green Storage: Examples of technologies and innovations</th>
</tr>
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</table>
| **Post-harvest handling and treatment technology for green storage** | i. Preparation of the SAPs before green storage.  
ii. Drying to reach optimum moisture content as necessary.  
iii. Bio-based preservation processes.  
iv. Supervision to ensure quality and safety.  
v. Food traceability system. |
| **Sorting and packaging technologies for green storage** | i. Sorting to remove infested or damaged materials.  
ii. Packing into green storage containers or packaging materials, e.g. reusable containers or bio-based compostable containers to reduce plastic footprint.  
iii. Maintaining the required ambient conditions throughout the storage life.  
iv. Conducting inspections to ensure that ambient conditions are maintained. |
| **Low-carbon storage technology for harvested SAPs** | i. Green, low-carbon energy efficient cooling and storage systems.  
ii. Low use of storage chemicals.  
iii. Equipment and facilities that are based or partly-based on renewable energy (e.g. solar, wind and bioenergy), including on-site pre-cooling, room temperature storage and preservation. |
3. Thematic area three: Green Processing – key elements and examples of technologies and innovations

<table>
<thead>
<tr>
<th>Key element</th>
<th>Green Processing: Examples of technologies and innovations</th>
</tr>
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</table>
| **On-site processing technology**         | i. On-site processing technology and equipment facilities, including different types of renewable energy (e.g. solar, wind, bio-energy).  
ii. Preliminary processing technologies, including special horticulture products utilizing fresh-cut processing technology.  
iii. On-site processing quality and safety control technology, including cleaning and sterilization technology and harmful micro-organisms rapid detection technology.  
iv. The use of high- and low-tech biological and green processing technologies that reduce carbon emissions and the use of toxic or harmful alternatives.                                                                 |
| **Low-carbon and high-efficiency processing technology** | i. Low-carbon and high-efficiency processing technologies and equipment facilities, including different types of renewable energy (e.g. solar, wind, bio-energy).  
ii. Characteristic processing technologies and facilities to reflect the SAPs’ characteristic (nutrition, flavour, convenience, affordability, quality and function).  
iii. Non-damage detection and grading based on the appearance and/or weight of SAPs.  
| **By-product value-added processing technologies** | i. Special ingredient processing technology.  
ii. Functional ingredient extraction and processing technology.                                                                                                                                                                                                                                                                                       |
4. Thematic area four: Green Marketing – key elements and examples of technologies and innovations

<table>
<thead>
<tr>
<th>Key element</th>
<th>Green Marketing: Examples of technologies and innovations</th>
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<tbody>
<tr>
<td>Green price mechanism</td>
<td>i. Cost-oriented pricing methods.</td>
</tr>
<tr>
<td></td>
<td>ii. Pricing strategies, such as discount pricing, psychological pricing, differential pricing, regional pricing, combined pricing and new product pricing.</td>
</tr>
<tr>
<td></td>
<td>iii. Domestic and foreign futures market information to determine the market prices of SAPs or hedge risks.</td>
</tr>
<tr>
<td>Green marketing strategy</td>
<td>i. E-commerce technology, market information platform, distribution centre, product auctions and chain operations.</td>
</tr>
<tr>
<td></td>
<td>ii. Exhibitions (EXPO), retail terminal networks, family members’ mechanism and corporate membership mechanism.</td>
</tr>
<tr>
<td>Green brand strategy</td>
<td>i. Geographic identification products.</td>
</tr>
<tr>
<td></td>
<td>ii. On-site environmental certification.</td>
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<tr>
<td></td>
<td>iii. Regional public brands, corporate brands or product brands.</td>
</tr>
<tr>
<td>Green service strategy</td>
<td>i. Sophisticated service models, such as smart agriculture, technical services, cross-border e-commerce, international marketing platforms, brand communication and trainings.</td>
</tr>
</tbody>
</table>
## Section 1: Background Information

| 1.1 OCOP Focal point | Name:  
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<tr>
<th></th>
<th>Contact details:</th>
</tr>
</thead>
</table>
| 1.2 Originator       | Name:  
|                       | Title:  
|                       | Institution:  
|                       | Contact details: |
| 1.3 Title of the proposal | □ Africa  
|                       | □ Central Africa  
|                       | □ Eastern Africa  
|                       | □ West Africa  
|                       | □ Southern Africa  
| 1.4 Beneficiary region | □ Asia and the Pacific  
|                       | □ Pacific Islands  
|                       | □ Europe and Central Asia  
|                       | □ Central Asia  
|                       | □ Latin America and the Caribbean  
|                       | □ Caribbean  
|                       | □ Mesoamerica  
|                       | □ Near East and North Africa  
|                       | □ North Africa  
|                       | □ Gulf Cooperation Council States  
| 1.5 Beneficiary country: | □ Food crop  
|                       | □ Cash crop  
|                       | □ Horticulture products  
|                       | □ Forestry products  
|                       | □ Livestock products  
|                       | □ Fishery products  
| 1.6 SAP category target | □ Tropics  
|                       | □ Drylands  
|                       | □ Mountainous areas  
| • Product | □ Production  
|                       | □ Storage  
|                       | □ Processing  
|                       | □ Market  
| • Agroecological region | □ Production  
|                       | □ Storage  
|                       | □ Processing  
|                       | □ Market  
| • Value chain thematic area | □ Production  
|                       | □ Storage  
|                       | □ Processing  
|                       | □ Market  

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1.7 Target group(s)

- Smallholders
- Commercial producers
- Women producers
- Cooperatives
- Others

1.8 Engaged stakeholders

- Governments
- Developing partners
- Agribusiness
- Agricultural research
- Extension
- NGOs
- Development organizations
- Resource partners
- Private sector
- Others

**Section 2: Rationale**

(please refer to Chapters 1, 2, 3 and 4 of the Action plan)

2.1 Relevance (assessment of the SAP and its link with the FAO SF, Country Programming frameworks and SDGs)

- Country Programming Framework
- Regional Priorities
- SDGs
- FAO Strategic Framework
- Other FAO initiatives

2.2 Demands and comparative Advantages (Summary of the local demand, priority and advantages)

(300 words maximum)

2.3 Challenges

(300 words maximum)

2.4 Solutions

(300 words maximum)

**Section 3: Expected Results**

(please refer to Chapter 6 of the Action plan)

3.1 Impact (the higher order impact to which the project contributes to and is associated with the PPAs and the SDG targets and indicators)
3.2 Expected outcomes  
(the immediate beneficial change(s) promoted by the project, including economic, social, and environmental benefits)

3.3 Expected outputs  
(three to five deliverables of the project, including the establishment of technical network, extension of green technology, application of green enablers, setting-up of market access platform and formulation of efficient coordination mechanism)

| Section 4: Major Activities  
(please refer to Chapter 5 and Appendix 1 of the Action plan) |
|-------------------------------------------------------------|
| 4.1 Green production  
(requested) |
| Activity 1.  
Activity 2.  
... |
| 4.2 Green storage  
(optional) |
| Activity 1.  
Activity 2.  
... |
| 4.3 Green processing  
(optional) |
| Activity 1.  
Activity 2.  
... |
| 4.4 Green marketing  
(optional) |
| Activity 1.  
Activity 2.  
... |

| Section 5: Supports Requested  
(please refer to Chapter 7.1 of the Action plan) |
<table>
<thead>
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<tbody>
<tr>
<td>5.1 Key inputs (materials, resources and technical support needed)</td>
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<tr>
<td>5.2 Budgetary requirements (USD, describe the financial supports required from both FAO and self-funding)</td>
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</tbody>
</table>
### Section 6: Timeframe
(please refer to Chapter 7.2 of the Action plan)

6.1 Major activities for each year
(2022–2025)

### Section 7: Feasibility

7.1 Potential risks and mitigation strategies

### Section 8. Organization and Coordination
(please refer to Chapter 8 of the Action plan)

8.1 Establishment of the national task force

8.2 Technical synergy

8.3 Resource mobilization

8.4 Communication and outreach

8.5 Monitoring and reporting

### Section 9. Submission, Evaluation, Consolidation and Endorsement

9.1 Submission from Member to FAO Country Office
(comments and signature)

9.2 Evaluation by FAO Regional Office
(comments and signature)

9.3 Consolidation by FAO OCOP Secretariat
(comments and signature)

9.4 Endorsement by FAO Steering Committee
(conclusion and signature)
### B. Results framework of OCOP

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<th>Impact</th>
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<tr>
<td>Outcome(s)</td>
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**Output 1.**

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**Output 2.**

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**Output 3.**

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The Global Action on Green Development of Special Agricultural Products:
One Country One Priority Product (OCOP)

Action plan
2021–2025