



Harnessing Agri-Food Value Chains to Improve Nutrition

A Guidance Note

Agri-food value chains are excellent entry points for introducing or strengthening nutrition outcomes in international cooperation partner countries. This note is designed to provide inspiration and guidance to EU delegation staff who are planning or conceptualising agri-food value chains actions, and to reinforce the EU's commitment to ensuring that support to agri-food value chains contributes to economic growth, job creation, and improved access to healthy diets, thereby improving nutrition outcomes.

Background

All forms of malnutrition undermine people's health and well-being, cutting short lives and undermining collective efforts to ensure equality of opportunity and greater prosperity for all. The [latest data](#) confirms that in low- and lower middle-income countries, the majority of the population are unable to afford a healthy diet of adequate quality¹, while the diets of most women of reproductive age, and young children between 6 months and 2 years of age, do not meet minimum standards of diversity. Reduced purchasing power further weakens the market incentive required to boost agricultural diversification and ensure the local availability of sustainably produced fresh food.

Inadequate purchasing power is a key driver of persistent and widespread malnutrition as it weakens the market incentive required to boost agricultural diversification and ensure the local availability of sustainably produced fresh food required for healthy diets. However, it also underpins the rising prevalence of overweight and obesity across the world. This is taking place as more traditional diets are undermined by a greater reliance on cheaper and heavily refined grains, sugar and oils, including relatively more affordable and convenient ultra-processed foods.

This '[nutrition transition](#)' has devastating implications including for the advancement of the human right to adequate food and SDG 2 as well as the development of human capital and therefore the prospects for sustainable and inclusive economic

growth more generally. Conversely, investing in nutrition, offers significant economic returns including reduced healthcare costs, greater productivity and increased resilience².

In the context of the [EU's Global Gateway Strategy](#) for international partnerships, supporting the development of value chains in partner countries is not just about boosting production, trade and economic growth but crucially, also ensuring that engagement is contributing to sustainable, inclusive, and nutrition-sensitive agri-food systems. The Global Gateway strategy stands out as being 'values driven' and 'human rights' based, with its '360-degree approach', while emphasising that investments in infrastructure are accompanied by a context adapted package of measures 'to improve the policy, regulatory and business environment, develop skills, foster innovation and transfer technology'.

Such an approach is crucial to ensure long-term positive impacts and to bring about lasting change in the lives of women and men, girls and boys, particularly those who may otherwise have been most at risk of being left behind. Such values are reflected in various high-level commitments pertaining to gender, climate and biodiversity, including the EU's commitment to accelerate progress in ending malnutrition – as evidenced by the succession of pledges made by the EU at [Nutrition for Growth](#) Summits in 2013, 2021 and again in 2025.

¹ 86% of people unable to afford a healthy diet in low-income countries and 66% in lower-middle income countries.

² The World Bank's [Investment Framework for Nutrition](#) (2024) underscores the substantial economic benefits of investing in a specific set of 'nutrition interventions' which it projects to translate into a return of \$23 for every dollar invested.





How to make a project nutrition sensitive³

Integrate nutrition into the context analysis

To be nutrition-sensitive, it is crucial that the design of an action to support agri-food value chains is informed by a robust nutrition situation analysis to ensure understanding of the different forms of malnutrition prevalent in communities and across the life course as well as the underlying and basic causes of the problem.

Develop a clear targeting strategy

The analysis of the nutrition situation should be disaggregated by age, gender, location and, when applicable, other population groups, such as migrants or ethnic groups. It is also important to determine the nutritional status of the people involved with each stage of the value chain, such as labourers, small-holder farmers, consumers, noting that within these groups there may be differences. Identifying nutritionally at-risk groups and how they compare with those reached by the value chain will inform the project's targeting strategy.

Consider a range of context specific intervention options to enhance nutrition sensitivity

When selecting specific value chains, a nutrition-sensitive value chain (NSVC) analysis can inform the initial identification of intervention options across value chains that can improve nutrition outcomes by increasing the availability of a more diverse range of foods on local markets. Options may relate to inputs, food production, storage and processing, distribution and transport, trading and marketing, promotional activities and preparation / consumption.

All agri-food system related value chains can potentially impact nutrition outcomes, and vice versa

It is not only value-chains related to food that impact the quality of diets and nutrition outcomes. This is because as core elements of the food system, value chains influence not only the supply and availability of foods, but also the demand for food. Agro-ecological farming systems could make a significant contribution to diversified and healthy food production both for farmers and urban consumers. A *nutrition-sensitive* approach also considers how the development of value chains for specific cash crops could contribute to improving nutrition via different pathways, including increasing incomes, purchasing power and thereby access to healthy diets, while also increasing year-round availability in local markets, for example through the promotion of intercropping, processing, generating consumer demand etc.

At the same time, nutrition-sensitive value chains have the potential to contribute to broader socio-economic and environmental goals, such as economic growth, job creation, resilience building, biodiversity conservation, and climate change adaptation and mitigation.

Harness the nexus between gender equality and women's empowerment, and nutrition

Careful consideration and understanding of women's time allocation and control over resources, as well as their social status and roles in and outside the household, are essential for ensuring that development of value chains promotes women's empowerment in ways that are conducive to positive nutrition outcomes. Without such considerations and measures such as ensuring social protection including maternity allowance, childcare provision and challenging unequal social norms, there is a risk that increased participation of women in value chains may negatively impact on maternal and child nutrition.



³ A detailed IFAD guidance for project design in the context of nutrition-sensitive value chains can be found [here](#).

Guidance and 'checklist' of potential actions

1. **Identify opportunities for value chains that improve people's quality of diet and support nutrition outcomes**
 - ✓ Prioritise and promote year-round **diversification of agri-food systems with specific attention to** neglected crops to improve seasonal availability and enhance dietary quality and resilience.
 - ✓ Support **infrastructure for cold chains, storage, and transport to reduce food loss** and enhance availability and affordability of locally produced food.
 - ✓ Add nutrition value along the chain, for example by **strengthening local businesses in the areas of nutrient preserving, processing and packaging**, nutrition labelling, fortification etc as well as exploring potential to leverage by-products of crops for local markets⁴.
2. **For export-oriented cash crops, address potential trade-offs by promoting diversified farming models – including inter-cropping and agroforestry**
 - ✓ In cash crop value chains (e.g., cocoa, coffee, cotton), **promote intercropping with food crops** to enhance local food availability and dietary diversity.
 - ✓ **Support agroforestry (including fruit trees) together with diversified and mixed farming models** that contribute to both economic and nutritional benefits for smallholders.
3. **Incorporate measures to address low purchasing power as a key driver of poor diet quality**
 - ✓ Prioritise policies addressing low household incomes and purchasing power – including extremely low wages and informal employment among farm workers – as drivers of poor dietary quality. Ensuring that value chain investments align with decent work principles – **fair wages, job security, and safe working conditions** – is critical.
 - ✓ **Strengthening livelihood opportunities** across agri-food systems can help more people afford a healthy and diverse diet.
 - ✓ Boost effective local demand for locally produced foods by **improving access to social protection**.
4. **Strengthen smallholder and micro, small and medium-sized enterprises (MSME) inclusion**
 - ✓ Facilitate **equitable access to finance, inputs (including bio-inputs), and training** sustainable and agroecological farming systems and healthy diets for smallholders, women, and youth.
 - ✓ Promote nutrition-sensitive business models, including local **market linkages, local business models** and leveraging **public procurement** to ensure access to healthy, balanced meals in **public institutions** (e.g. schools, hospitals, childcare centres).
5. **Ensure women's economic empowerment does not negatively impact maternal and child nutrition**
 - ✓ Systematically assess the risk that while expanding employment opportunities for women can be economically empowering, it may undermine maternal and child nutrition, for example if existing **gender norms, social protection and workplace policies** are not supportive of breastfeeding and adequate childcare.
 - ✓ Promote policies that **protect and promote breastfeeding, support maternity benefits, and ensure universal social protection**, while working with stakeholders at multiple levels to **change unequal gender norms** to mitigate these risks.
6. **Ensure food safety, environmental sustainability and enhanced biodiversity to improve quality of diet**
 - ✓ Promote safe and sustainable production practices to **reduce contamination (including pesticides) and ensure food safety**⁵.
 - ✓ Include regulatory measures to ensure absence or acceptable levels of presence of **microbiological, chemical and physical hazards**.
 - ✓ Integrate **agro-ecological principles** to enhance biodiversity, soil health, and long-term productivity, thereby supporting access to healthy diets in the long term.
 - ✓ **Promote demand** for foods that if (re)introduced into diets are expected to improve nutrition outcomes for example through **social marketing campaigns, and awareness raising, cooking classes** etc.

4 By-products of export crops, such as cashew apple and cocoa pulp, offer significant potential for local nutrition. Cashew apples, often discarded, can be processed into juices, jams, and dried snacks rich in vitamin C, while cocoa pulp can be used to produce nutrient-dense juices or fermented into probiotic beverages. Leveraging these by-products for local markets not only enhances food security but also reduces waste and creates additional income streams for farmers.

5 For example, in the case of nuts (including both groundnuts and tree nuts) the risk of aflatoxin contamination is addressed through improved pre-harvest and post-harvest practices as well as storage and processing innovation, testing and certification incentives, increased consumer awareness and the strengthening of food safety regulations together with enforcement mechanisms.



Selecting indicators for nutrition-sensitive value chains

Cash crops such as cocoa, coffee and cashew are vital to the economies of many partner countries. However, ensuring that export-oriented investments at the same time contribute to improved diet quality and affordability of healthy diets is critical to meeting national and international targets for improved nutrition. Without intentional measures, reliance on income solely from cash crops can potentially exacerbate food insecurity and poor nutrition⁶. However, by integrating nutrition-related indicators, EU-supported projects can:

1. ensure cash crop investments translate into improved nutrition outcomes;
2. track improvements in the ability of farming communities to afford a diverse and healthy diet; and,
3. strengthen policies to support intercropping, agroforestry and agroecology while promoting living incomes and fair wages, boosting the purchasing power of families to ensure healthy diets, and ensuring that increased participation of women in value chains does not negatively impact on maternal and child malnutrition.

The indicator associated with SDG 2.1 for ending hunger is 'prevalence of undernourishment'. However, while important for measuring per capita food availability, this indicator is not appropriate to measure nutrition related outcomes. Moreover, anthropometric indicators associated with SDG 2.2 for ending malnutrition, such as child stunting, generally take a longer time to improve than the duration of a nutrition sensitive value chain action.

For those reasons, indicators measuring various aspects of dietary quality are often the most relevant for the monitoring and evaluation. Widely recognised and endorsed examples of such indicators include:

- [Share of the population able to afford a healthy diet](#)
- [Minimum Dietary Diversity for Women \(MDD-W\)](#)
- [Minimum Dietary Diversity for Children \(MDD\)](#)
- [Minimum Acceptable Diet for Children \(MAD\)](#)
- Women's empowerment in nutrition ([WENI](#) and [A-WENI](#))

Context specific indicators may also be developed to measure relevant changes in specific behaviours such as breastfeeding, feeding practices, cooking methods and hygienic practices.

Critical steps for EU Delegations and European Commission staff

- Ensure nutrition indicators are embedded in project design, reporting, monitoring and evaluation.
- Leverage EU expertise and existing initiatives, to strengthen the integration of nutrition-sensitive interventions into projects related to value chain development across agri-food systems.
- Reinforce policy dialogue with stakeholders at all levels to align investments in value chain developments with commitments to improve nutrition outcomes.

⁶ Fenn, B., Kumar, R., Radic Jean, I., Sarfatti, P. (May 2025). Analysing pathways and potential of agri-food value chains to deliver nutrition impacts (Final report). Nutrition Research Facility. https://www.nutrition-research-facility.eu/IMG/pdf/nrf_vca4d_final_report.pdf



Value chain intercropping - examples of diversifying both incomes and diets⁷



Cashew

- Where cashew value chains are being supported, intercropping with groundnuts or millet can serve both to enhance soil fertility and provide a rich food source for communities.
- Cashew is typically grown in dry tropical areas and has a broad canopy that allows space for intercropping with shorter plants and deep-rooted species.
- Possible options include legumes such as cowpea, pigeon pea and groundnut, which in addition to providing protein rich foods can also improve nitrogen fixation.
- Vegetables can also be considered to enhance dietary diversity, in particular leafy greens. In drier regions millets and sorghum provide an option more tolerant to drought conditions



Coffee

- Coffee benefits from agroforestry systems and grows in shaded, humid regions.
- Bananas and plantains can offer shade and reduce temperature stress, while providing an energy rich food source.
- Root crops such as cassava, yam and sweet potatoes can also contribute to household energy intake and free up purchasing power to purchase a diverse range of food.
- Orange trees, along with other fruit trees such as avocado or mango, can be intercropped to improve the flavour palette of coffee while providing nutrient-rich fruit for household consumption or local markets.
- Spices such as black pepper, vanilla and ginger can also support additional income generation.
- As coffee takes several years to mature, intercropping can help to provide food and income in the meantime, while strengthening resilience.



Cocoa

- Cocoa thrives under shaded conditions and benefits from mixed cropping as a result of soil enrichment and biodiversity.
- Fruit trees including avocado, papaya and mangoes can make a significant contribution to the quality of diets, while providing additional income.
- Tubers such as cassava, taro and sweet potatoes can also contribute to household energy intake and free up purchasing power to purchase a diverse range of food.
- Vegetables can also be considered to enhance dietary diversity and micronutrient intake, in particular leafy greens.

⁷ Specific recommendations for intercropping also vary considerably by regional context. For example, cashew systems in dry tropical West Africa may integrate groundnut/cowpea to enhance soil fertility and dietary protein, whereas coffee systems in humid East African highlands may use banana/plantain for shade and nutritious household food.

Cashew nut, coffee bean and cocoa bean production in Africa, Asia and Latin America⁸



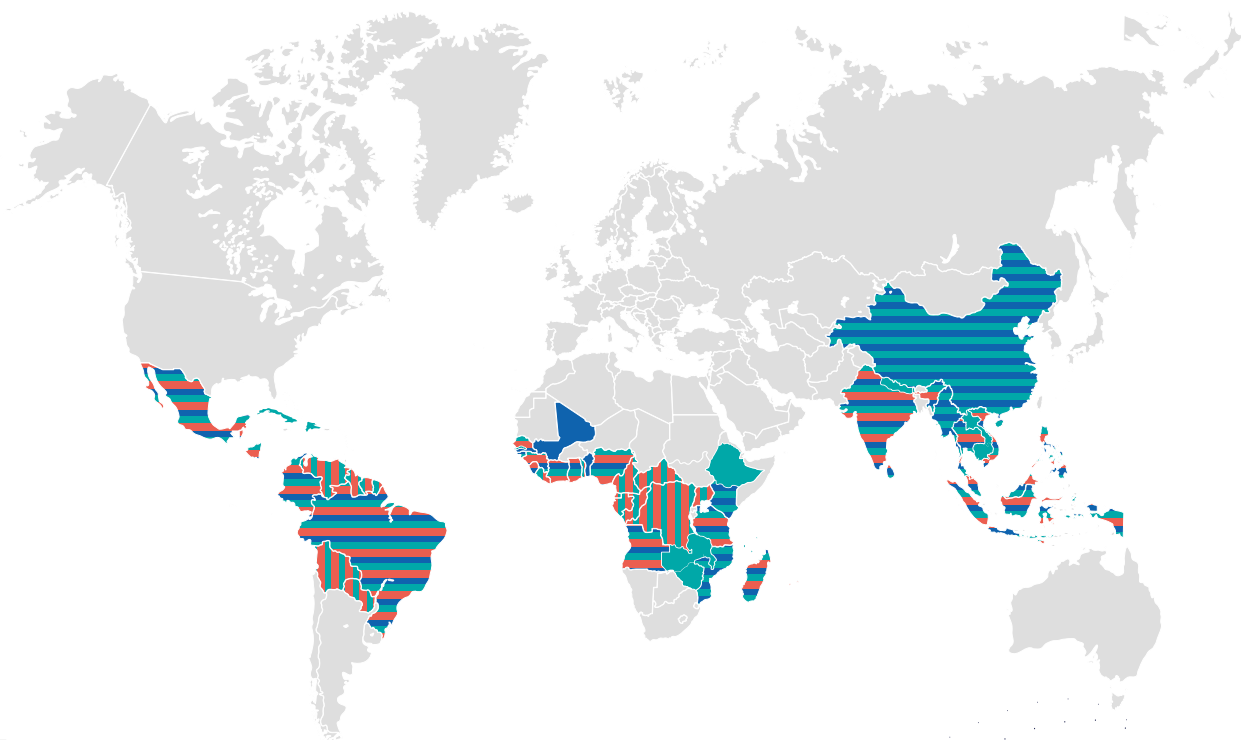
Cashew



Coffee



Cocoa



⁸ From Hannah Ritchie, Pablo Rosado, and Max Roser (2023) - 'Agricultural Production' Published online at <https://ourworldindata.org>



Showcasing an example of EU support for nutrition-sensitive value chains

The translation of the EU's commitment to improving nutrition, including in strengthening value chains across agri-food systems, is effectively demonstrated in Lao PDR, where 58% of the population is unable to afford a healthy diet.

As part of the Team Europe partnership with Lao PDR, the flagship TICAF⁹ programme, launched in 2024, supports a greener, sustainable and more inclusive growth through increased production, processing exports and decent job creation in the coffee, tea and forest-based value chains. Sensitive to the poor diets and widespread malnutrition in Lao PDR, the action includes a strong focus on improving availability and access to healthy and diverse foods, including the promotion of an agro-ecological approach at community level to address dietary quality through local production as well as increased income and resilience.

The Action Document includes indicators on dietary diversity,

stunting, and anaemia, and articulates the following intervention logic: *IF agro-ecological and intercropping practices are promoted at the community level AND business model are developed THEN income will be diversified, access and availability to nutritious food will improve and communities resilience will be strengthened*. Correspondingly, a core objective is *Diversified income and improved availability of and access to healthy and diverse foods, through the sustainable management of association of crops and the promotion of female-decision-making*. Indicators are included to measure the affordability and consumption of a diversified diet as well as 'the share of farmers and smallholders practising nutritious intercropping'.

9 TICAF: Team Europe Partnership with Lao PDR to increase sustainable and inclusive trade, investment and connectivity in the agriculture and forestry sectors

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