Background Paper Stockholm+50 on Sustainable Value Chains Food System and Agriculture

Using Value Chains in the Transformation to a Sustainable Food System: Opportunities and Challenges

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Key Messages

Multiple pathways need to be considered when looking for entry points for transformation towards a more regenerative, equitable and inclusive food system. Food value chains being the link between production and consumption therefore have a crucial role to play for driving a transformation towards a sustainable food system. Value-chain actors can support and be supported in promoting sustainable food systems through:

- Promoting investment and financial resources in support of resource efficiency practices and inclusive food systems.
- Transparency, new metrics, standards, and targets promoting sustainable food systems.
- Building food-system resilience by promoting diversity and inclusivity.
- Strengthening smallholders' agency.

Why do we need to transform our current food system?

The way food is produced today is outstripping the planet's resources, creating global health crises and increasing food insecurity. As the world continues to grapple with climate change, recovery from the COVID-19 pandemic, and the war in Ukraine and other shocks affecting food production and supply chains have increased global food security risks. The Paris Agreement and the UN Sustainable Development Goals (SDGs) – particularly (1) No Poverty, (2) Zero Hunger, (3) Health and Well-Being, (13) Climate Change, and (15) Life on Land – cannot be achieved without an urgent transformation to regenerative and equitable food systems that produce healthy, safe, and nutritious food for all. This requires a food-systems approach that recognizes socio-economic, geopolitics and environmental drivers and challenges at different stages of the food value chain[1]. Sustainable food systems are increasingly on the international agenda, and the first UN Food Systems Summit (UN FSS) took place in 2021. As a result of the Summit, participants from governments, the private sector, civil society, indigenous peoples, and youth signed up to transforming food systems to achieve the 17 SDGs adopted by the UN in 2015.

Yield growth and falling food prices have been accompanied by increasing food waste, from the field to the table, and a growing burden on human health associated with poor diets and environmental degradation. Recent reports from the Intergovernmental Panel on Climate Change, estimate that food systems contribute to 21 - 37% of human-caused GHG emissions and 5-10% of it comes from food supply chains (storage, processing, transport and retail) (Mbow et al. 2019). The world is still far away from providing sustainable food security and nutrition for all. And at the same time, large proportions of the world's human population bear a burden of malnutrition through the triple threat of undernutrition, micronutrient deficiencies, and overweight and obesity (Global Nutrition Report 2018).

However, while agriculture and food production are drivers of environmental, climate change and health problems, they can also be part of the solutions to these challenges. It is crucial and urgent to redesign and transform current food systems to be regenerative, circular, and inclusive.

Positioning food value chains in the larger food system thinking

Greenhouse gas emissions or other negative environmental impacts from food systems mainly occur at the primary agricultural production stage but the interventions – technological, policy or financial incentives to address these impacts – can be found at many different stages of the agriculture and food production system (UNEP, 2021). Food value chains, including food processing, value addition, and markets, are particularly important in this regard. An example of this is the dramatically increased demand for palm oil, which can lead to deforestation. Therefore, it is important to understand how different drivers of food systems shape operations along the value chain and how these drivers contribute to sustainable food system outcomes. Applying a food systems approach helps us to understand the interconnections among different actors and find entry points to transform food systems.

The crucial role of value chains for food system transformation

Food value chains have a crucial role to play in achieving transformation towards a sustainable food system, as the channels between production and consumption. Food value chains can influence production and consumption both negatively and positively in terms of food system transformation and can catalyse and support:

- Agriculture practices that adopt key principles of sustainability and resource efficiency, where most of the environmental repercussions in the food system come from land use, crop and livestock production, and fisheries. Integrated mix-use landscapes can reduce emission through greater resources and systems efficiency.
- Equitable and inclusive food systems, by better linking smallholder farmers to value chains market opportunities and thereby supporting rural livelihoods.
- A more diverse food system, developing and promoting value chains for nutrient-dense and healthy food by adding value to nutritious but underutilized crops and novel sources of food, thereby promoting higher degrees of agrobiodiversity and food system resilience.

1 Adopting definition from UNEP, food value chain approach can be defined as the stages of the value chain including 'middle stages' of the value chain, comprising food processing and packaging, retail and food services, in influencing and shaping both primary production and final consumption (United Nations Environment Programme 2021).

- A more circular food system, where value-chain actors are key to develop new business models for adding value to agro/food waste, increasing circularities in the food system.

What needs to change?

A sustainable transformation towards net-zero, nature-positive and equitable food systems for all requires:

- Global targets for food systems supporting the Paris Agreement and the 1.5°C goal for climate change connected to global guidelines. Such targets also include food-system frameworks and polices, including agricultural, health, social and environmental priorities, that involve all stakeholders along the value chain.
- Transformation of the financial sector to ensure mobilization of capital and businesses able to promote inclusive, climate-smart and regenerative food systems.
- A resource efficient and circular food-production system based on a more diverse base of primary produce coupled to investments in circular value chains for healthy food products.
- Educating consumers on healthy and sustainable food choices, reinforced by knowledge-based and responsible production, marketing, and consumption.

How can change be achieved?

How can value-chain actors be supported in promoting sustainable food systems? Below we suggest some key actions to this effect.

- ***Unlocking financial resources and promote investment to support resource efficiency practices and inclusive food systems***

Investment should be redirected from environmentally harmful subsidies, fiscal policies, and incentives towards reward systems for net-zero, nature-positive actions and finance to encourage more sustainable farming practices. Governments can introduce fiscal policies that encourage nature-positive technological innovation, for example, by incentivizing food producers to adopt and scale-up agricultural innovations that promotes resource efficiency, climate-smart production and sustainable value addition. The private sector can influence innovation by redirecting venture capital finance, investing in digitization, and precision farming, as well as funding scientific advancements to strengthen food-system governance and stability. Furthermore, companies in the value chain have a potential role in achieving sustainability through sourcing food produced in a nature-positive, climate-smart manner providing information on sources, ingredients, and nutritional profiles and promoting consumer awareness and responsible consumer choice. However, further measurements must be considered to ensure that their pledge does not lead to greenwashing.

- ***Data and transparency: define new metrics, standards and targets promoting sustainable food systems***

To support the development of sustainable food system, metrics are essential. Proper metrics could track and incentivize transitions from current conditions towards a sustainable food system. For example, such metrics could go beyond measuring agricultural productivity in terms of economic gain, or yield, per unit input towards measuring the performance of the whole food system. This involves measuring environmental consequences in terms of GHGs, air and water pollution, and loss of soils and biodiversity and health outcomes in terms of costs associated with malnutrition in all its forms. In other words, metrics for assessing whether people are fed sustainably, equitably, healthily, and profitably per unit input needs to be developed and made available to guide value-chain actors' and consumers' choices.

- ***Building resilience by promoting diversity and inclusivity***

Promoting food security by incentivizing farmers to cultivate climate-smart, and diversified crops which can contribute to availability and affordability of healthy and nutritious diet without risking the environment. Policy makers and businesses need to provide platforms for indigenous people, vulnerable groups, small-scale farmers, and consumers to ensure that a diversity of solutions and circular economic models are explored and integrated in the policy processes and business practices. This can build on the work of the Committee on World Food Security, with its intergovernmental platform and a multi-stakeholder approach integrating civil society and indigenous people to work together on ensuring food security and nutrition for all.

- ***Strengthening smallholders' agency***

As challenges for solving the global food crisis unfold, so do new opportunities, such as new technologies, knowledge-based practices, novel value chains, and agri-entrepeneurial models. Governments, NGOs, and capacity-building organizations needs to coordinate and work collaboratively to enhance smallholders capacities, access, and power, particularly women and youth in the Global South, to increase their knowledge, skills, and improve livelihoods. This training should include value-chain actors to encourage a resetting of business terms with farmers to make contract farming more inclusive and equitable and to ensure that female farmer's interests and voices are integrated into the contract. Opportunities and access for women – particularly indigenous women – should be expanded to offer incentives such as access to carbon/ecosystem markets and shared decision-making activities with businesses/governments on future land-use and transition outcomes.

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The following documents have been reviewed for this brief:

Repurposing Food and Agricultural Policies to Make Healthy Diets More Affordable. FAO, Rome

Global Nutrition Report (2018). 2018 Global Nutrition Report. Shining a Light to Spur Action on Nutrition. Development Initiatives Poverty Research Ltd. https://globalnutritionreport.org/reports/global-nutrition-report-2018/

Mbow, C., Rosenzweig, C., Barioni, L. G., Benton, T. G., Herrero, M., et al. (2019). Food Security. In: Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems. In press

United Nations Environment Programme (2021). Catalysing Science-Based Policy Action on Sustainable Consumption and Production - The Value-Chain Approach & Its Application to Food, Construction and TextilesNairobi. https://www.oneplanetnetwork.org/sites/default/files/from-crm/report_unea5_catalysing_science-based_policy_action_on_scp_-_task_group_irp-one_planet_0.pdf

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