



Connecting SWITCH-Asia activities with

CLIMATE AND CIRCULARITY

AGRI-FOOD

The European Union (EU) SWITCH-Asia Programme provides a platform for partnerships and networking between Europe and Asia, supporting the implementation of national strategies and action plans on Sustainable Consumption and Production (SCP) practices. With the assistance of the European Commission, Asian countries are supported to transition towards low-carbon, resource-efficient and more circular economies that contribute to poverty reduction.

SWITCH-Asia seeks to connect circularity, SCP and climate change mitigation and adaptation in the agri-food sector, thereby exploring pathways towards circular, low-carbon economies.

Partnerships between Asian countries and the EU can bring needed mutual inspiration and create shared expertise. By jointly exploring how the agri-food sector can play a key part in the transition to circularity and SCP, professionals from Asia and the EU can identify shared visions for the future and sharpen their local implementation priorities.

The decisive sector for addressing the triple planetary crises and human health

The agri-food sector is among the most resource-intensive and economically important sectors globally. It is also connected to each of the triple planetary crises: climate change, pollution, and biodiversity loss. Food systems are causing up to 30% of global greenhouse gas emissions, including from livestock, fertiliser, production, transportation, storage, processing, the packaging of food, and post-consumer losses. Current industrial-scale operations are optimised for low-cost production and quantity of output; they cause soil erosion, pollution, and lower regenerative capacity. Farming on previously forested land, monocultures, and use of pesticides and fertilisers cause biodiversity loss in flora and fauna. In the current agri-food system, animal welfare is generally not considered and meat and dairy consumption is rising, despite its detrimental impacts on climate, environment and health. Much of the current industrialised systems are powered by fossil fuels, not just in production, but also in transport and distribution, as it relies on cold chains and plastic packaging.

The sector is also uniquely threatened by climate change: climate-related change in regional weather patterns and adverse weather events affect the yields both of smallholder farmers, as well as large-scale agricultural operations. They also impact value adding processing and can disrupt transport pathways and sales infrastructure.

Adequate food availability is considered a human right. Social and development agendas nationally and globally put food security front and center, and SDG 2 “Zero Hunger” is central to achieving the development outcomes set forth in the Sustainable Development Goals. Meanwhile, more than 2.3 billion people did not have access to adequate food in 2020, and healthy diets are out of reach for more than 3 billion people. At the same time, almost a third of all food produced is lost or wasted. In industrialised and middle-income countries, diet-related chronic diseases like cardiovascular disease and type 2 diabetes are increasing. This affects both health and longevity, and is linked to diets of low-quality, high-caloric, industrially produced food.

From an individual’s perspective, food is one of the key determinants of perceived quality of life – is it steeped in traditions and part of collective and individual preferences and identity, health, development, and wellbeing.

Circularity and the agri-food sector

Circular Economy is a system-driven approach of interconnected strategies and innovations enabling SCP. It offers a perspective for leaving current inefficient and detrimental economic and business practices behind. Circular economy dimensions exist to guide this transformation around circular strategies, innovation, life cycle stages, and enablers. Resource switch strategies aim at utilizing renewable and less harmful materials. Resource circularity strategies promote the use and reuse of materials, products, and their components within production and the consumption system. Resource efficiency strategies minimize waste generation, through better design, as well as efficiency of production, use, and consumption. Achieving circular strategies at the different stages along the lifecycle depends on innovations, materials, business and consumption models, and designs of a product and service to distribution, use, and end of life management.

Circularity in the agri-food sector is intrinsically linked to generating positive outcomes for nature, for example by using practices and technologies of regenerative agriculture, agroforestry, and conservation agriculture. These can restore soil quality, sequester carbon, protect watersheds and improve biodiversity. It also includes high-efficiency agriculture technologies, for example drip irrigation. Circularity also necessitates the rethinking of industrial food products, including ingredient selection and sourcing as well as transport and packaging that prioritise low impacts, prevention of losses and return of secondary materials back into production and consumption systems. This will also lead to a re-diversification of foods and products, as well as localised production and consumption. All of this increases the resilience of agri-food systems, and their regeneration capacities.

Finally, the uptake of circular economy strategies requires enablers. Enablers include appropriate policies, development of markets, and education and capacity building. Markets need to be reshaped to lead to nature-positive outcomes in the sector that also consider health – through regulations and incentives. Market participants need to be involved in actively reshaping producer and consumer decision-making with key responsibilities falling on more powerful players. From a consumption perspective, there is a need to shift to dietary habits within planetary boundaries that provide high-quality nutrition; while general guidelines exist, for example to consume a diversity of plant-based foods and limiting of animal-sourced products as well as refined grains, highly processed foods and added sugars, actual diets will be highly localised and individual.

EU policies and priorities

Launched in December 2019, the EU Green Deal is a flagship policy that prioritises green innovation, employment and quality of life. Member states are committed climate-neutrality by 2050, and economic growth and wellbeing are decoupled from resource use. The EU Circular Economy Action Plan details legislative and non-legislative measures and initiatives to facilitate the EU transition to a circular economy by aligning the environmental, economic, and social dimensions of sustainability. It supports initiatives around the entire life cycle of products, targets how products are designed, promotes circular economy processes, and encourages sustainable consumption; while ensuring waste is prevented and the resources used are kept in the economy for as long as possible. In the agri-food sector, the EU From Farm to Fork Strategy aims to reduce the environmental and climate footprint of the EU food system. It seeks to strengthen its resilience, and ensure food security while integrating climate mitigation and biodiversity; animal welfare is also considered. This is also linked to the 2030 EU Biodiversity Strategy. Other relevant policies are the EU Common Agriculture Strategy as well as the EU Chemicals Strategy, and overarching policy goals like sustainable urbanisation, decent green jobs creation and relevant skills development, and quality of life.

Globally, the EU aims to be a leader in the transition to sustainable food systems. EU partnerships and trade relations thus seek to contribute to its climate-environment and resilience agendas for the agri-food sector, including through promotion of efficient conservation and sustainable management of natural resources on land and in the ocean, and a substantial reduction of waste generation. They also seek to enable social development and decent work, and more sustainable procurement practices. As part of its strategy for the Asian region, the EU aims to achieve strengthened and resilient value chains between EU and Asian economies and between Asian economies.

As a societal agenda, through its New European Bauhaus initiative (2021), the EU connects the European Green Deal to the daily lives of its citizens, including food and health. For example, urban farming and regenerative agriculture are promoted to reduce emissions and strengthen understanding and engagement between citizens and the agri-food sector. It thereby envisions a sustainable and inclusive future, and societal transformation.

SWITCH-Asia activities

The EU and its SWITCH-Asia programme have recognised the critical importance of the agri-food sector. The programme promotes SCP in the sector through technical assistance provided by the SWITCH-Asia SCP Facility and the Regional Policy Advocacy Component (RPAC) at government-level, and through the Grants Programme in support of the regions' SCP-relevant entrepreneurs and SMEs.

More than 30 SWITCH-Asia grant projects since 2008 have been making significant impacts in the agri-food sector across the region – currently active ones are located in Lao PDR, Vietnam, China, Mongolia, India, Uzbekistan, and Tajikistan. They cover subsectors such as coffee, cacao, poultry, bamboo, organic food farming, food and beverage, and cold chain logistics. Circular strategies— resource circularity, resource efficiency, and resource switch— are covered in the projects which address various lifecycle stages of agri-food. Opportunity lies within primary and secondary production, distribution, and consumption stages. Innovations to support the strategies include green and profitable business models, technological solutions, innovative products, return and reuse schemes, and green purchasing platforms. Grant projects seek to achieve nature-positive outcomes, including healthy soils, biodiversity, and air and water quality, and to provide secure employment and livelihoods.

Policy support in the agri-food sector were conducted in Kyrgyzstan, Tajikistan, Vietnam as well as for the whole pan-Asia region.

SWITCH-Asia stakeholders have stressed the importance of innovations in technologies and business models, sustainable investments, skill development and capacity building, partnerships for transforming the agri-food sector, and good environmental governance. Product and process innovation is needed, for example by certification and standards. In addition, public policy needs to be changed and public awareness raised, allowing for a shift in consumption behaviours. Envisioning a transformed agri-food sector also implicates other sustainability issues – health, gender equity, resource distribution, and a just transition.

Important takeaways from SWITCH-Asia grants projects, assignments and stakeholder discussions

- Circularity in food systems ensures optimising for locally adapted, nature-positive, healthy diets rather than low-cost output; wastes are used as secondary materials returned in the production-consumption systems, overproduction is redistributed, and thereby, resilient production systems are created and their output is fully utilized.
- National policy and international governance endeavours need to send signals to all stakeholders of the agri-food value chain that optimising for circularity is the only strategy viable in the long-term:
 - Support for innovation ecosystems is critical; innovative ideas coming from science and technology as well as learning from sustainable local and traditional practices.
 - Regenerative agriculture and circular systems need to be incentivised, whereas harmful conventional practices and industrial products need to be scaled down, for example, by integrating external costs into their pricing through taxes or bans.
 - Trade policies and international cooperation, need to reflect the climate-environment and social agendas as set forth in the SDGs as well as national and regional strategies, such as the EU Green Deal.
- Research is needed and knowledge and skills have to be developed to enable circular product design and business cases; capacity building needs engage farmers, food entrepreneurs, processor, aggregators, and institutional and private consumers.
- Funding programmes and financing need to be activated as farmers and players along the value chain require investments to be able to transition to circular models.
- Business models of the agri-food sector need to be adapted and be reflective of the mind shift underlying circularity considerations, and its related aspects including improving public health and animal welfare.
- On the consumer side, preferences need to be shifted and awareness raised of the importance of everyday food consumption and its impacts on planetary and human health.

