INNOVATIONS FOR A CLEANER AGRI-FOOD SUPPLY CHAIN

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SMEs GOING CIRCULAR
Decarbonisation of Food Supply Systems

ENVforum Annual Conference 2022
BACKGROUND

The Asia-Europe Environment Forum (ENVforum) “SMEs Going Circular: Decarbonisation of Food Supply Systems” was a two-day online international conference aiming to boost the exchange of ideas and solutions for decarbonising the agri-food industry.

The transition to a circular economy centres on net-zero commitments and can only be achieved by scaling up collaboration and partnerships among stakeholders involved in the small and medium-sized enterprises (SME) ecosystem. Thus, the Conference offered a platform to empower participants to identify challenges, exchange best practices, and brainstorm solutions for the effective decarbonisation of food supply chains. This is key to stimulate progress towards achieving a sustainable future.

SMEs’ DECARBONISATION PATHWAYS: INNOVATIONS FOR A CLEANER AGRI-FOOD SUPPLY CHAIN

Food is one of the eight supply chains that account for more than 50 percent of global emissions. Decarbonisation is a global priority for the agri-food sector and SMEs play a crucial role in efforts to transform the way our food is produced and consumed. “Small businesses are the hidden heroes of our food systems, managing at least half of our food economies and keeping food on our plates throughout the COVID-19 pandemic,” said Dr Agnes Kalibata, Special Envoy of the UN Secretary-General for the 2021 Food Systems Summit. But decarbonisation is a challenge for the industry and even large companies struggle to get the data they need and to set clear standards and targets for their suppliers.

Many well-reported barriers are delaying decarbonisation in the agri-food sector, which lags compared to other sectors in climate adaptation. Varied levels of economic development and the lack of access to financial services make securing the means to scale up innovation difficult. Where financing is available, fragmented farming networks and informal land tenure agreements lower the incentives.

Governments in Asia are seeking urgent ways to transform the agri-food sector by professionalising their respective small and micro-sized food producers and thus creating jobs and value for the region. The scale of this transformation presents a significant commercial opportunity for investors as companies develop and adopt new technologies to meet the requirements of the future.

Farmers and businesses are increasingly embracing a wide range of agriculture technologies to boost crop yields and become more resilient in the face of climate change. This translates to a global smart farming market that is expected to reach US$23.1 billion globally by 2022, more than double the 2017 levels.¹

POLICY RECOMMENDATIONS

The presentations and discussions at the ENVforum Annual Conference 2022 made clear that innovations are essential to creating greener supply chains across all stages of the agri-food value chain such as production, processing, storage, distribution, consumption and disposal.

While exploring the policy frameworks, existing practices and case studies during the session, it become clear that there are multiple opportunities for decarbonisation across the agri-food value chain. In particular, the following approaches have been highlighted:

• Providing decision support for risk management and climate adaptation from production to post-harvest;
• Applying technology to make transportation and distribution more efficient;
• Addressing concerns on food loss and food waste via e-commerce and upcycling;
• Providing incentives and financial support to farmers via carbon farming and related trading.

The following policy recommendations emerged from the discussions at the Forum:

RECOMMENDATION 1

Empower farmer groups to become service providers and influence existing SMEs that provide services.

In order to achieve the scale needed to make a significant difference in the emissions, it is crucial to tap into the potential offered by millions of farms.

SMEs have become increasingly aware of the leverage they have to close loops and contribute to the circular transition. They also have the flexibility to use innovations and offer solutions to improve resource efficiency that may result in reduced costs and waste.

The SMEs specialised in providing services to farmers build trust, ensure that farmers are empowered with knowledge and act as a catalyst to trigger the transformation and shift toward zero-carbon innovations.

**RECOMMENDATION 2**

The younger generation has an important role to play as agents of change to bridge the gap between existing practices in innovation and technology.

Young people have a role to play in their communities by bringing their perspective, and expertise as digital natives and socially-minded advocates, which increasingly translates into the immediate lifestyles and values they prioritise. Being raised in a digitally-connected, globally-minded world, they bring unique perspectives, skills, and experiences that can help to shape modern food systems and make them circular.

Young people are interconnected, and they can engage with each other and achieve more than previous generations. They all have equal access to knowledge that was once solely reserved for the privileged and can act as innovators in their communities by initiating decarbonisation strategies.

The role of the younger generation as agents of change is pivotal. Young change agents taking leadership positions bring an opportunity for mindset change by embracing change and connecting different realities that can result in behavioural changes. Questioning the status quo and bringing new approaches of the circular mindset to existing behavioural patterns is one of the promising strategies to decarbonise agri-food supply chains.

**RECOMMENDATION 3**

Systemic change is essential across the enabling environment nexus of policies, structures and financing.

Agriculture and food production have an enormous potential to address the root causes of climate change and restore ecosystems that sequester carbon. Its role in providing nutritious food is shaping our economies and yet, is also safeguarding human and planetary health.

Policy strategies and subsidy systems are increasingly promoting corporate-owned agri-food businesses and global markets, although their role should be creating more opportunities for all. Policy makers need to step in to reverse the damage and among many available solutions consider intensified incentives programmes promoting decarbonising of existing systems addressing policies ranging from procurement, food and agriculture certification, to distribution and consumption.

Structural change has an important role in creating an enabling environment. More active advocacy efforts are needed to support systemic change and create synergies instead of duplication of resources and waste generated throughout the whole supply chain.

Easy access to financing for SMEs plays a role in ensuring they are in business, however it does not support circular businesses, therefore the shift to incentivise the circular business operations is needed.

As SMEs are typically considered risky investments by traditional banks and financial institutions, they rely on internal funds or private funding from family and friends to launch and run their companies. As such, they tend to focus primarily on survival rather than innovation.

**RECOMMENDATION 4**

Knowledge exchange, collaboration and partnerships are essential to achieve net-zero in agri-food supply chains and beyond.

The knowledge exchange taking place either via collation or competition triggers an exchange of ideas and creates demand for unconventional solutions. The pressure generated by such exchanges creates a flow of ideas and stimulates innovation. Taking part in various competitions, connecting with like-minded stakeholders to jointly work on solutions and sharing failures and successes, builds trust and fosters innovation that results in unconventional out-of-the-box ideas and in efficient decarbonisation practices available for the business community and beyond. Supporting innovation ecosystems through policies and funding will also increase the opportunities for knowledge exchange, collaboration and partnerships.
The Asia-Europe Foundation (ASEF) promotes understanding, strengthens relationships and facilitates cooperation among the people, institutions and organisations of Asia and Europe. ASEF enhances dialogue, enables exchanges and encourages collaboration across the thematic areas of culture, education, governance, economy, sustainable development, public health and media.

ASEF is an intergovernmental not-for-profit organisation located in Singapore. Founded in 1997, it is the only institution of the Asia-Europe Meeting (ASEM).

ASEF runs more than 25 projects a year, consisting of around 100 activities, mainly conferences, seminars, workshops, lectures, publications, and online platforms, together with about 150 partner organisations. Each year over 3,000 Asians and Europeans participate in ASEF’s activities, and much wider audiences are reached through its various events, networks and web-portals.

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For more information, please visit www.hss.de or www.hss.de/southeastasia

ASEM SMEs Eco-Innovation Center (ASEIC) was established in 2011 with the principal mandate of promoting Asia-Europe cooperation to create and enhance eco-innovation of small and medium-sized enterprises (SMEs) in both regions.

For more information, please visit www.aseic.org/main.do

Established in 1998, the Institute for Global Environmental Strategies (IGES) is an independent, not-for-profit think tank, based in Japan. It goes beyond research to provide practical ways to protect the earth’s environment and to realise greater sustainability and equity in the global community.

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Established in 2003, the Asia-Europe Environment Forum (ENVforum) is a partnership of the Asia-Europe Foundation (ASEF), Hanns Seidel Foundation (HSF), ASEM SMEs Eco-Innovation Centre (ASEIC), Institute for Global Environmental Strategies (IGES) and the Government of Sweden through the Strategic Collaborative Fund administered by Stockholm Environment Institute (SEI).

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