

Circular Economy Dimensions



Circular Strategies



Innovation



Enablers

switchasia GRANTS PROGRAMME



GRANT PROJECTS CONTRIBUTING TO THE CIRCULAR ECONOMY

44	ONGOING IN 2022
15	Agri-food
8	O Textile and Leather
3	Sustainable Housing and Building
5	O Plastics
2	Waste Management
10	O Tourism
1	O Multi-industry



CIRCULAR ECONOMY

The increase in resource consumption is leading to a rapidly accelerating crisis situation - growing pollution, loss of biodiversity and ecosystems, and climate change. To decouple growth in well-being from environmental degradation and resource overconsumption, a shift from linear (extract-make-use-throw away) to circular (extract-make-use-reuse/ recycle/remake/recover) models of development is urgently needed.

The circular economy (CE) offers a framework in which the value of materials, parts, and products remains for as long as possible within the production and consumption system.

CE is a system driven by interconnected strategies and innovations (Figure). It is to be achieved through Circular Strategies that correspond to the goals of sustainable consumption and production. This means relying on renewable and/or less harmful materials ('resource switch'), striving for perpetual use and re-use of materials, products and their components within production and consumption systems ('circularity of resources'), as well as minimising waste generation through better design and efficiency of production and use ('resource efficiency'). Achieving circular strategies depends on Innovations in materials, technologies, and business and consumption models (including consumption by private consumers, and public and business organisations). All CE strategies and innovations must be taken into consideration during the different steps in Life Cycle Stages - from selection of materials along with product or service design to distribution, use and end-of-life management. Finally, the acceptance and implementation ('uptake') of CE will require **Enablers** – appropriate public policies, functional markets, and education and capacity development.

In the context of this brochure, the SWITCH-Asia Grants are portrayed as contributors to different elements of the CE from practicing CE strategies and innovations along the supply chain to contributions into critical enablers. Presenting the Grants in the CE ecosystem will open up perspectives for further engagement between them and additional critical partners in the ongoing movement towards circular transformation.

CIRCULAR ECONOMY DIMENSIONS*



- Resource Circularity
- Resource Efficiency
- Resource Switch

- Products, Materials & Technologies
- Business Models
 - Consumption Patterns / Lifestyle

- Lifecycle Stages
- Materials
- Desian
- Production & Distribution
- Use
- End of Life

- **Enablers**
- Education & Behavioural Change
- Public Policy
- Markets

* Adapted from Van Berkel, R. 2021. 'Building a Circular Manufacturing Economy', presentation at CII GreenCo 2021 Summit, 7 October 2021. https://greenco.in/grncosummit/



SWITCH to Solar

Promotes production patterns in the Cambodian agri-fishery sector with a focus on agro-processing by encouraging micro-, small, and medium-sized enterprises (MSMEs) to adopt solar solutions; and fostering replication through demonstration and access to finance. Awareness raising on sustainable production is also promoted, policy dialogues organised, line ministries will be involved in demonstrations on sustainable production practices, and interactions between MSMEs and financial intermediaries will be supported.



Resource Switch





- - Lifecycle Stages

Production & Distribution









eECHO: Towards Energy Efficiency in Agri-Food **Cold Chain Logistic in China**

Enhances the resource-efficiency and sustainability of the Agri-food Cold Chain Logistic in Tibet, Jingjinji & Shandong by providing MSMEs with mechanisms to reduce energy use and GHG emissions of logistic services, while ensuring food quality and safety, and reducing food wastage.







Products, Materials & Technologies

Production & Distribution

Lifecycle Stages

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- Education & **Behavioural Change**
- Public Policy











Products, Materials &

Enablers

SCAN ME



SAFE – Supporting Scheme for MSMEs by Building Sustainable Agricultural Fresh Food Production and Logistics in China

Promotes eco-efficient agricultural production among farmers, improved processing and packaging, and better food safety through verification systems, guidelines, and standards, as well as efficient and innovative logistics.

Products, Materials &

Technologies

Business Models



Resource Efficiency







Production & Distribution

Materials

Stages

SCAN ME

- Enablers
- Education & Behavioural Change

- Public Policy
- Markets





Bhoomi Ka

Promotes sustainable local food systems that safeguard public and environmental health and supports sustainable smallholder agriculture. Encourages the switch to sustainable food consumption and production patterns through campaigns and awareness raising initiatives.







 Education & Behavioural Change







Promote Bamboo MSME Clusters for Sustainable Development

Promotes sustainable resource consumption and generates green jobs through development of the bamboo and bamboo-based products in India, focusing on Micro, Small and Medium Enterprises (MSMEs).





- Products, Materials & Technologies
 - ls &

Materials

Lifecycle Stages



Enablers

Markets





INDONESIA

Low Carbon Rice – Reducing Climate Impact of Rice Production in Indonesia

Reduces the climate impacts of rice through the adoption of sustainable rice cultivation practices. Increases access to finance to SMEs, enabling access to loan and credit programmes and new business models for sale of rice by-products and carbon credits.





- Resource Efficiency
- Products, Materials & Technologies



Production & Distribution





- Education & Behavioural Change
- Public Policy
- Markets







SuPER WE Coffee - Sustainable Production and Ethic Responsible & Women Empowered Coffee value chains in Lao PDR

Improves the economic profitability, efficiency and sustainability of intensified coffee production by smallholder farmers. Supports MSMEs in reducing the environmental impact of their industrial production by adoption less polluting and more resource-efficient circular approaches.



Circular Strategies



- Resource Efficiency
- Resource Switch

- Products, Materials & Technologies
- Lifecycle Stages
- Production & Distribution



Education &

Markets

Behavioural Change

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MONGOLIA

Switching On the Green Economy (SOGE)

Supports Mongolian agri-food and beverage MSMEs and retailers in adopting circular economy practices through market-based eco-labelling systems, tailored technical assistance, behaviour change and access to green finance.





- Products. Materials & Technologies
- Lifecycle Stages
- Production & Distribution





- Education & **Behavioural Change**
- Markets













NGA-Myanmar – Nurturing Green Aquaculture in Myanmar

Supports aquaculture MSMEs to adopt more resource-efficient and greener production practices, reducing environmental degradation in Myanmar's aquaculture industry, while ensuring improved economic returns in the value chain.







- Resource Efficiency
- Products, Materials & Technologies
- Lifecycle Stages
- Production & Distribution

Lifecycle Stages

Production & Distribution



 Education & Behavioural Change

MERCY CORPS







MYANMAR

Circular Strategies

Resource Efficiency

Tha Bar Wa - Catalysing Sustainable Water and Energy Management in Food and Beverage Industries in the Ayeyarwady River Basin

Supports food & beverage SMEs to finance and implement Cleaner Production practices, contributing to sustainable industrial development in the Ayeyarwady River Basin.

Innovation

Products, Materials

& Technologies





- Education & Behavioural Change
- Markets















🔾 TAJIKISTAN, UZBEKISTAN

PHILIPPINES

REAP - Resource Efficiency in Agri-food Production and Processing

Promotes SCP practices in the agri-food production and processing industries along the entire supply chain. Develops business case for resource efficiency measures by MSMEs, while promoting eco-efficiency based on international standards and supporting companies in presenting bankable projects to financial institutions. Provides training to MSMEs on suitable financial instruments for SCP solutions.







- Resource Efficiency
- Products, Materials & Technologies
- Lifecycle Stages

Design

- Production & Distribution



SCAN



 Education & Behavioural Change









Biomass Gasification Technology - Sustainable Energy Solution for Agri-Food Processing and Waste Management in Rural Areas of Vietnam

Promotes sustainable production and sustainable energy consumption among agri-food processing micro and small enterprises (agri-MSEs) in Vietnam and contributes to waste management by scaling up the deployment of environmentally friendly and low-cost Volumetric Continuous Biomass Gasification (VCBG) technology. Increases availability of mechanical and biomass supply services and access to finance for agri-MSEs to deploy VCBG consistently.





- Resource Efficiency
- Resource Switch

- Products, Materials & Technologies
 Business Models
- Business Models

Lifecycle Stages

End of Life



 Education & Behavioural Change

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OXFAM

- Public Policy
- Markets





Circular Economy Cocoa: From Bean to Bar

Promotes the development and adoption of less polluting and more resourceefficient and circular products, processes and services by MSMEs in the cocoa industry, allowing their integration into global greener value and supply chains.









- Resource Efficiency
- Resource Switch

- Products, Materials & Technologies
- Business Models



- Production & Distribution
- Design

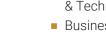




- Education & Behavioural Change
- Markets









Promotion of supply and demand of Eco-Fair Agri-food processing products in Vietnam

Enhances the capacity of MSMEs to implement sustainable production and product innovation practices in the agri-food supply chain. Addresses sustainable supply chain management with a focus on green trade and facilitates the integration of MSMEs into supply chains. Builds the capacity of eco-fair MSMEs and supports a network to promote the eco-fair label; creates an enabling environment and enhances the capacity of eco-fair MSMEs to access financing.









Promotion of sustainable energy practices in the garment sector in Cambodia

Promotes the adoption of sustainable energy practices in the garment manufacturing sector in Cambodia by supporting regulatory and enforcement measures, stimulating demand and increasing the supply of sustainable energy technologies and services. Provides technical and financial services including a guarantee fund to support factories' switch towards sustainable energy practices.





Resource Switch

 Products, Materials & Technologies



Production & Distribution



Cambodia

Education & Behavioural ChangePublic Policy





CHINA

Transitions to circular economy practices in textile and apparel MSMEs along the lifecycle in Huzhou and Shaoxing

Promotes improved sustainable management, resource efficiency and adoption of circular economy principles by the local textile and fashion industry in the cities of Huzhou and Shaoxing, facilitating China's textile and fashion industry's transition towards a circular economy by 2025.





- Resource Circularity
- Resource Efficiency
- & Technologies
- Business Models

Products, Materials

Innovation



- Materials
- Design
- Production & Distribution
- End of Life





 Education & Behavioural Change











Effective waste management and sustainable development of the MSME tanning companies in the Kolkata Leather Cluster

Promotes sustainable production practices in the highly polluting tanning sector through technology transfer, capacity building of tannery management and workers, and facilitating access to technical and financial services.







Products. Materials

& Technologies



Lifecycle Stages

Production & Distribution

- - Education & **Behavioural Change**

Enablers

Solidaridad





INDIA

Resource Circularity

Resource Efficiency

Promoting circularity in the Tamil Nadu leather clusters for solid waste management

Promotes circular market-based models for processing solid waste generated from leather tanning and finishing practices in the Tamil Nadu leather clusters. Enables the reduction of amount of solid waste that ends up in the open spaces/landfills. Improves the public health situation for workers and people living near leather clusters in Tamil Nadu and enhances international competitiveness and market access of leather export from Tamil Nadu.



Solidaridad



Education & Behavioural Change









- Resource Circularity
- Resource Efficiency
- Products. Materials & Technologies

Innovation

Production & Distribution

Lifecycle Stages



Switching to Green & Fair Fashion: Advancing sustainable production and consumption in cotton & textile value chains

Promotes adoption and mainstreaming of sustainable production systems in India's cotton textiles sector by creating an enabling framework, supporting green business development and improving access to green finance.









- Resource Circularity
- Products. Materials
 - & Technologies
- Design

Lifecycle Stages







Education & Behavioural Change





MONGOLIA

Resource Switch

Capacity building to the Mongolian vegetable tanned yak leather cluster on bio-leather and bioleather products

Supports the Vegetable Tanned Yak Leather Cluster in reducing the environmental impact of production. Improves resource efficiency and encourages adoption of circular economy practices, enabling its members' integration into global greener value and supply chains.



Resource Switch



- Resource Efficiency
- Innovation
- Products. Materials & Technologies



- Materials
 - Production & Distribution



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Education & Behavioural Change









STeP EcoLab - Sustainable Textile Production and **EcoLabelling in Mongolia**

Supports the supply chain and the textile industry in adopting more sustainable sourcing and production practices, simultaneously improving the branding for sustainable products, optimising cost-saving measures and reaching out to climate finance and diversifying the portfolio of customers.





Resource Efficiency

Resource Switch

Products. Materials & Technologies

Innovation

Production & Distribution

Lifecycle Stages



Behavioural Change

Enablers

Markets





TAJIKISTAN, UZBEKISTAN

RUTSIS - Reviving Uzbekistan and Tajikistan's sustainable Ikat and Silk

Contributes to the revival and upgrade of traditional silk and ikat production through integrated value chain services, sustainable production practices and design of textile products based on international sustainable performance requirements. Enhances recognition of sustainable silk and ikat products from Central Asia in the international market through the use of eco-labeling and branding instruments.









- Products, Materials & Technologies
- Lifecycle Stages
- Design Production & Distribution







- Education & **Behavioural Change**
- Public Policy











RurEnergy: Promoting sustainable residential energy consumption in rural China

Promotes the adoption of cost-effective energy retrofitting solutions for rural households, integrating thermal performance improvement and sustainable renewable heating and cooking. Promotes energy efficient behaviour change among rural households in the provinces of Henan and Gansu.





- Resource Efficiency
- Resource Switch

& Technologies

- Products, Materials
 - Materials Use

Lifecycle Stages





Education & **Behavioural Change** Public Policy



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MONGOLIA

Switch-off Air Pollution in Mongolia's Cities

Improves air quality and reduces GHG emissions in urban Mongolia through the scaling-up of conducive and inclusive access to finance and energy efficient solutions in the housing sector.



Markets

SCAN ME







BUILDING Energy Efficiency in Nepal (BEEN)

Promotes climate-responsive building designs, the use of energy efficient space heating and cooling technologies as well as renewable energies and resource efficient building materials.







- Education & Behavioural Change
- Public Policy
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PROTOPRINT – Promoting Socio-economic Transformation by Empowering Informal Waste Pickers for Production of 3D Printing Filaments in Pune

Improves the lives of marginalised waste pickers in Pune, India by creating replicable business models through re-skilling and access to innovative technology. Creates a city-wide network of micro-enterprises with the goal to process collected suitable plastic waste into 3D printing filaments, high valueadded marketable products.





- Resource Circularity
- Products, Materials
 - & Technologies
- **Lifecycle Stages**

End of Life

- Enablers
 - Education & Behavioural Change











INDIA, MALDIVES, SRI LANKA

PROMISE – Prevention of Marine Litter In The Lakshadweep Sea

Contributes to the prevention and leakage of wastes from land-based sources into the Lakshadweep Sea, enhancing the attractiveness of tourism industries, avoiding further deterioration of marine ecosystems and improving living conditions in the Maldives, Sri Lanka and India.







- Resource Circularity
- Consumption Patterns / Lifestyle
- Lifecycle Stages
- Use End of Life





- Education & **Behavioural Change**
- Public Policy



Sustainable Plastic Recycling in Mongolia

Promotes sustainable production among MSMEs by developing less polluting and more resource-efficient products, processes and services; and sustainable consumption patterns and behaviour in Mongolia through raising awareness of the principles of 3Rs (reduce, reuse, recycle) among consumers. Increases MSMEs' access to finance and creates an enabling environment to strengthen the implementation of national SCP policies.









Resource Circularity

- Products, Materials & Technologies
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Lifecycle Stages

Materials

DesignEnd of Life





 Education & Behavioural Change





O MYANMAR

Prevent Plastics

Circular Strategies

Resource Switch

Enhances capacity for more responsible waste management in factories, local MSMEs and communities; supports MSMEs producing eco-friendly packaging and recycled products; promotes cooperation between MSMEs and Myanmar retailers, and identifies green finance possibilities. Increases awareness raising and sharing of best practices on waste management, in particular plastic prevention and reduction, for consumers and producers.

Innovation

Products, Materials

& Technologies





 Education & Behavioural Change







PLASTICS: Promoting Long-term Approaches for a Sustainable, Transformative and Inclusive Circular Economy in Sri Lanka

Facilitates sustainable and innovative plastic minimisation and management in Sri Lanka by integrating SMEs in greener value and supply chains (V/SC), thereby contributing to economic prosperity and environmental sustainability.











Enablers

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- Resource Circularity
- Products, Materials & Technologies
- DesignProduction & Distribution
- Public Policy

CHINA

Pride on our Plates- Strengthening China's MSMEs through food waste solutions and behavioural insights

Promotes adoption of more resource-efficient processes and services among MSMEs, including an actual reduction of food waste. Develops a Food Waste Policy Proposal to increase awareness on Sustainable Consumption and Production (SCP) and strengthens policies related to curbing food waste. Raises awareness on SCP by training MSMEs to use a Behaviour-Centred Design (BCD) approach to food waste reduction, and widely disseminating information to businesses and consumers.





- Resource Efficiency
- Products, Materials & Technologies
- Consumption Patterns / Lifestyle
- **Lifecycle Stages**
- Production & Distribution

Use



Education & **Behavioural Change**

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战略合作伙伴 STRATEGIC PARTNERS





MONGOLIA

3R4UB - The 3Rs for a sustainable use of natural resources in Ulaanbaatar

Supports SMEs and MSMEs in adopting and financing SCP practices from demonstration to practical replication of sustainable urban landscape and waste management. Follows an innovative design for a Smarter Consumption Plan through knowledge-sharing and co-design approaches, involving a wide range of stakeholders and the wider community towards innovative and competitive solutions for Ulaanbaatar's environmental issues.











Education & **Behavioural Change**





WASTE MANAGEMENT



End of Life

BHUTAN

SHINE – Sustainable Hospitality Industry Inclusive of Native Entrepreneurs

Develops inclusive community-based ecological tourism models, particularly in Bhutan's marginalised rural districts. Implements SCP practices and integrates green services and products in the tourism supply chain, contributing to resource efficiency, promotion of cultural heritage and a circular economy.







Resource Switch

Circular Strategies

 Products, Materials & Technologies

Innovation

DesignProduction & Distribution

Lifecycle Stages

 Education & Behavioural Change

Enablers



SUSTOUR Bhutan – Replicating EU tourism industry SCP best practices into a Bhutanese sustainable tourism model

Enhances sustainability and competitiveness of the tourism sector in Bhutan through support to travel associations developing green business approaches. Promotes access to green finance for MSMEs of the tourism sector in order for them to adopt SCP and resource efficiency measures, while creating appropriate enabling environment for related policies.









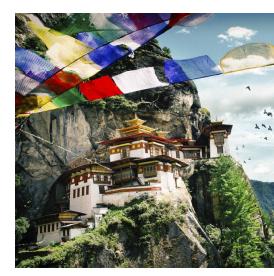
- Products, Materials & Technologies
- Lifecycle Stages
- Production & Distribution





 Education & Behavioural Change







KAZAKHSTAN

SUSTOUKA - Implementation of SCP practices and sustainability schemes in the MSMEs of the Tourism Sector in Kazakhstan

Enhances sustainability and competitiveness of the tourism sector through support to MSMEs by developing green business approaches and access to green finance. Contributes to resource efficiency in the tourism accommodation sector and supports implementation of sustainability certification systems.



Resource Efficiency





- Products. Materials & Technologies
- Design
 - Production & Distribution

Lifecycle Stages



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Enablers

Behavioural Change

Education &

Markets







KAZAKHSTAN, TAJIKISTAN, UZBEKISTAN

A model for sustainable tourism in Central Asia: Building Capacities, Creating Awareness, Introducing Technology

Promotes sustainable tourism in Uzbekistan, Kazakhstan and Tajikistan through implementation of ISO standards related to green procurement and ecolabeling. Elaborates Guidelines on sustainable consumption, including usage of water, energy and recyclable waste. Promotes the sharing of the EU best practices such as legislative frameworks and regulations, while applying needed ICT and marketing tools.







Products, Materials & Technologies

Production & Distribution

Lifecycle Stages



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- Education & Behavioural Change
- Public Policy
- Markets







Resource Efficiency



GREENTOUR - Replicating tourism industry sustainability best practices into the Kyrgyzstan and wider Central Asian tourism supply chain through an integrated business led approach

Integrates green services and products in the tourism supply chain; develops waste management approach for hotels, restaurants and destinations, in particular for food waste and plastics reduction standards. Fosters the creation of new financial schemes and promotes access to finance for MSMEs.







 Consumption Patterns / Lifestyle



End of Life



HELVETAS GERMANY

Enablers

Behavioural Change

Enablers

Public Policy

Markets

Education &





🔾 KYRGYZSTAN

PERETO - Promotion of energy security and sustainable growth through increased energy and resource efficiency in tourism SMEs in Kyrgyzstan

Fosters the adoption of SCP and energy and resource efficiency measures through the introduction of different tools and training while promoting the adoption of voluntary green certification; develops an online Self-Assessment Tool for MSMEs; promotes access to green finance for MSMEs of the tourism sector in order for them to adopt SCP and resource efficiency measures, while creating appropriate enabling environment for related policies.



Resource Efficiency





- Products, Materials & Technologies
- Lifecycle Stages
- Design
- Production & Distribution



American University © Central Asia





SET - Promoting energy efficiency and renewable energy production in the community-based tourism sector in Central Asia

Promotes transition of Kyrgyzstan, Uzbekistan and Tajikistan to a low carbon economy by adapting and introducing new resource and energy efficiency solutions by technology providers and facilitating access to green finance to scale up this new technologies and SCP solutions in the touristic sector. Develops "Green hostels" model by implementation of SCP practices such as local eco-standards, eco-certification scheme, value-chain approach and resource efficiency.



- Resource Efficiency
- Resource Switch

 Products, Materials & Technologies

Innovation

- Lifecycle Stages
- MaterialsProduction & Distribution







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ENERGY FOR



LAO PDR

SUSTOUR Laos – Promoting Sustainable Tourism by Integrating MSMEs into Sustainable Supply Chains and Raising Consumer Awareness



Promotes Lao PDR as a green destination and supports MSMEs in the tourism supply chain to obtain and adhere to sustainable consumption and production practices upheld by the Travelife sustainability certification programme. Enhances the capacity of MSMEs in developing green business approaches in response to market demands. Promotes community-based tourism by providing tour operators and community members with adequate knowledge and awareness of the cost, benefits and responsibilities for sustainable tourism. Promotes access to green finance for MSMEs and cost-savings through resource efficiency.



Resource Efficiency

- Products, Materials
- & TechnologiesConsumption Patterns / Lifestyle

Innovation



Production & Distribution

 Education & Behavioural Change

Enablers

Markets







- Education & Behavioural Change
- Markets



PARYA SAMPADA

Promotes sustainable development, poverty reduction and climate change mitigation through sustainable tourism and green growth in Heritage Settlements in Nepal.







THAILAND

TOURLINK – Moving Thai Tourism towards sustainability through a business led supply chain approach

Implements supply chain methodologies, standards and guidelines to enhance MSMEs competitive advantages in the tourism sector. Promotes sustainability reporting, labelling and certification; facilitates the adoption of less polluting and more resource efficient products, processes and services in the Thai tourism sector. Supports the adaptation and replication of SCP good practices and greener products while promoting business models approaches and access to green finance.



Circular Strategies



- Resource Efficiency
- Products, Materials & Technologies
- Consumption Patterns / Lifestyle



- Materials
- Design
 - Production & Distribution



Enablers

Behavioural Change

Education &

Markets

UN-HARITA







SWITCHing India's Consumption to Fair and Sustainable Goods

Educates and engages consumers in urban India on the concept of sustainable consumption, focusing on food and clothing.







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SCAN ME

FAIRTRADE







