

EU GRANT PROJECTS AND ACTIVITIES PROMOTING SCP 2008-2024

SOUTH ASIA / SOUTHEAST AND EAST ASIA / CENTRAL ASIA





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Responsible and Ethical SCP

Time to Act



its **SDG12 on Responsible Consumption and Production**, while consumption- and production-related targets are inserted in most of the other SDGs. Such recognition has been further confirmed by the 2015 Paris Agreement and the Quito New Urban Agenda, both recognizing the necessity to promoting sustainable lifestyles and resource efficiency.

It is important to note and understand that SCP is not just another approach but a **systemic process** which involves and engages all stakeholders, consumers and producers, with **common and shared but differentiated responsibilities**. Multi-stakeholder, multi-sectorial and inter-generational by nature, SCP is a practical, opportunities-driven, solution-oriented, decision-making process to deliver the necessary innovative, transitional, and progressive actions towards sustainable development. In short, **SCP** can be considered as **the operational definition of sustainable development** and its practical translation into responsible behavioral decisions and actions. The urgency of implementing SCP has increased this century, both with regard to planetary boundaries in general and climate change in particular. Challenges have become even greater, as middle classes across the world have “bought into” unsustainable lifestyles. At the same time, technological innovations and new understandings of the interplay between economies and societal wellbeing have generated new perspectives and opportunities. And SCP as a concept is of great validity.

Consumption and production patterns are at the basis of demand and supply. By making these more sustainable, they can thereby contribute to green growth and the green economy through greening supply chains and improving resource efficiency. If shaped accordingly, consumption and production patterns can also create a circular economy through increased recycling and waste prevention. Ultimately, SCP structures sustainable development through an integrated and systemic understanding - thereby delivering on a socially responsible, environmentally friendly and economically viable development trajectory.

In fact, **SCP is the missing link for an effective delivery of sustainability.**

SCP can quickly become an engine for positive impactful development when the benefits of **“doing more and better with less”**, within the system and throughout the ecosystem, are well understood. On the basis of improved knowledge, relevant enabling capacity, adequate governance, and good demonstrative practices, the deforming lenses of short-term constraints can be identified, thereby preventing business as usual consumption and production practices. SCP is not a static or linear process, on the contrary **SCP is a dynamic and evolving process**, continuously adapting to knowledge and contexts, and continuous balancing of the system's components. **SCP is a “movement” empowered by innovation, efficiency and responsibility, a necessary “companion” to green and circular economy delivery.**

This is precisely what the **SWITCH programme** is all about, **informing, enabling, and accompanying concerned stakeholders and actors in promoting and delivering inclusive green and circular economy and sustainable development through responsible and sustainable consumption and production patterns.**

The **SWITCH-Asia** programme provides an important framework for delivery, a framework tailored to Asia needs and its various countries specific contexts, structured around key priorities and driving forces of each country, city and community, while **enhancing and enabling the policy framework, the industrial, in particular SMEs, context, the market capacity and the consumers’ responsible behavioral decisions and actions.**

Asia has been leading the global discussions and awareness raising towards SCP for the last two decades and preparatory work in Asia has been critical for the adoption of the 10YFP. This is one of the reasons why the SWITCH programme was first initiated in Asia. Moreover, Asia, known already as the “manufacturing hub of the world”

with all obvious negative consequences on environment and health, concentrates the largest number of consumers. Increasing the pressures on resources and impacts on the environment, the growing middle-class demands for lifestyles that impact negatively on the society and the ecosystems. **SWITCH-Asia aims at demonstrating that alternative ways already exist, that more responsible development processes are possible in Asia**, that local SMES and local innovations, when efficiently backed-up and enabled, can indeed be the drivers of the urgently needed sustainable development. Their efforts need to be further strengthened by partnerships and sharing of experiences and success stories between Asian countries and with European countries.

Thanks to and because of Covid-19, some seem to be (re)discovering the virtue of SCP, without which there could be no Green Growth, no Green Economy, no Circular Economy, no low-carbon economy, no climate mitigation, no biodiversity protection and no Green Recovery effectively delivered in the spirit of long-term transformative change. Hopefully, this will not just be an opportunistic attitude and hopefully, the global community, the rich nations and the developing countries, the large business companies and the SMEs, have finally understood the absolute necessity for an urgent change of our still mostly irresponsible and unsustainable consumption and production patterns. After decades of knowledge gathering, projects piloting and experience sharing on SCP, finally acting on our insights, and creating an environment conducive to transformative change, is not only our shared responsibility, but an ethical obligation.

Arab Hoballah
EU SWITCH-Asia Team Leader
Former Chief SCP, UNEP



Purpose and Scope of this Book

This book provides readers with practical knowledge and information about the vast number of EU SWITCH-Asia funded projects that have been implemented in Asia for over a decade, as well as insights about their impact in the region.

127 ongoing and completed projects are clustered under key overarching thematic issues in line with EU Green Deal priorities: Agri-food, Textiles and Leather, Sustainable Housing and Building, Waste Management, Plastics, Tourism, Transport and Logistics, and Electronics, among others.

Since its inception, the SWITCH-Asia programme has been following trends common to Europe and Asia, two regions that are increasingly interconnected through global value chains. Important lessons learned and experiences from Asia may inform and support the implementation of the external dimension of the European Green Deal, while mainstreaming SCP in support to a green and circular economy, environmental justice and equality.

The European Green Deal is a transformative agenda to a fair, sustainable and more circular economy. It puts environment and climate change at the heart of the EU agenda, both in Europe and in the world. As part of its strong international ambitions, the EU Circular Economy Action Plan and the Farm to Fork Strategy promote resource efficiency and waste reduction in global value chains as well as ambitious standards for sustainability.

Our mission is to support the transition of Asian Countries to a low-carbon, resource-efficient and circular economy while promoting sustainable production and consumption patterns within Asia and greener supply chains between Asia and Europe.

About the SWITCH-Asia Programme

WHO WE ARE

SWITCH-Asia was launched in 2007 as part of the European Union's priority to support Sustainable Consumption and Production (SCP) in its regional cooperation strategy for Asia. The programme currently covers 24 countries in Asia and Central Asia and addresses emerging economies, least developed countries and major CO₂ emitting countries. The engagement of the programme with stakeholders is twofold:

Its **grant scheme component** targets Micro, Small and Medium-sized Enterprises (MSMEs), business organisations and industrial clusters, retailers, chambers of commerce, national clean production centres, research centres and universities, NGOs and consumer organisations willing to test and adopt cleaner and more sustainable production processes, improve the sustainability of their products and change their consumption behaviours. Under this scheme, partnerships involving both Asian and EU organisations are established in order to share Best Available Techniques (BAT) and increase SCP expertise, sharing of lessons learned and ensuring the EU added-value into programme's activities.

Its **policy and networking components** (SCP Facility and Regional Policy Advocacy Component) provide direct support to national governments and related implementing agencies in charge of national policies and regulatory frameworks related to SCP. Some countries have weak institutions, ineffective environmental legislation, unclear accountability and poor transparency. These issues are taken into account in the programme's implementation through its

capacity building activities. Finally, the SCP Facility plays the key role of facilitating the information exchange between the three components of the programme, ensuring coherence of activities and communication of results to stakeholders.

Since its launch, about 130 projects have been funded with an average grant size of EUR 1.7 million across a wide range of sectors including: energy efficiency in industrial plants and houses, agri-food and fishing sectors, textiles and leather, tourism, logistics and freight. These were implemented by over 500 Asian and European partners, about 100 private sector associates, indirectly benefitting up to 80.000 MSMEs.

The evidence provided by grant projects is meant to feed into policy and regulatory dialogues with Asian governments for the elaboration and implementation of national policies, regulatory frameworks and policy instruments related to SCP, Circular and Green Economy (in collaboration with EU Delegations and Focal Points of Ministries in partner countries).

Synergies with regional and international organisations are important to ensure complementarities in the support provided to national governments in terms of policy development, for example on SCP practices like green building codes. The programme also builds collaboration with financial institutions. This is essential to promote (new) green financing for MSMEs for the wider replication of SCP practices tested through the SWITCH-Asia grants.

The EU SWITCH-Asia Programme represents an important tool to support the uptake of more Sustainable Consumption and Production (SCP) practices in the region. Investing in sustainable industrial practices and resilient value chains will have a significant and transformative impact in many countries to decouple economic growth from resource use moving from linear to circular economic systems and to support the green recovery process regionally.

Alessandra Lepore

SWITCH-Asia Programme Coordinator,
Directorate-General for International Partnerships, European Commission

How We Work



SUPPORTING GAME CHANGERS THROUGH PROJECTS



Testing and adopting greener and more sustainable **industrial processing** in MSMEs;



Promoting greener products and more **sustainable consumption patterns** and behaviours in Asia.

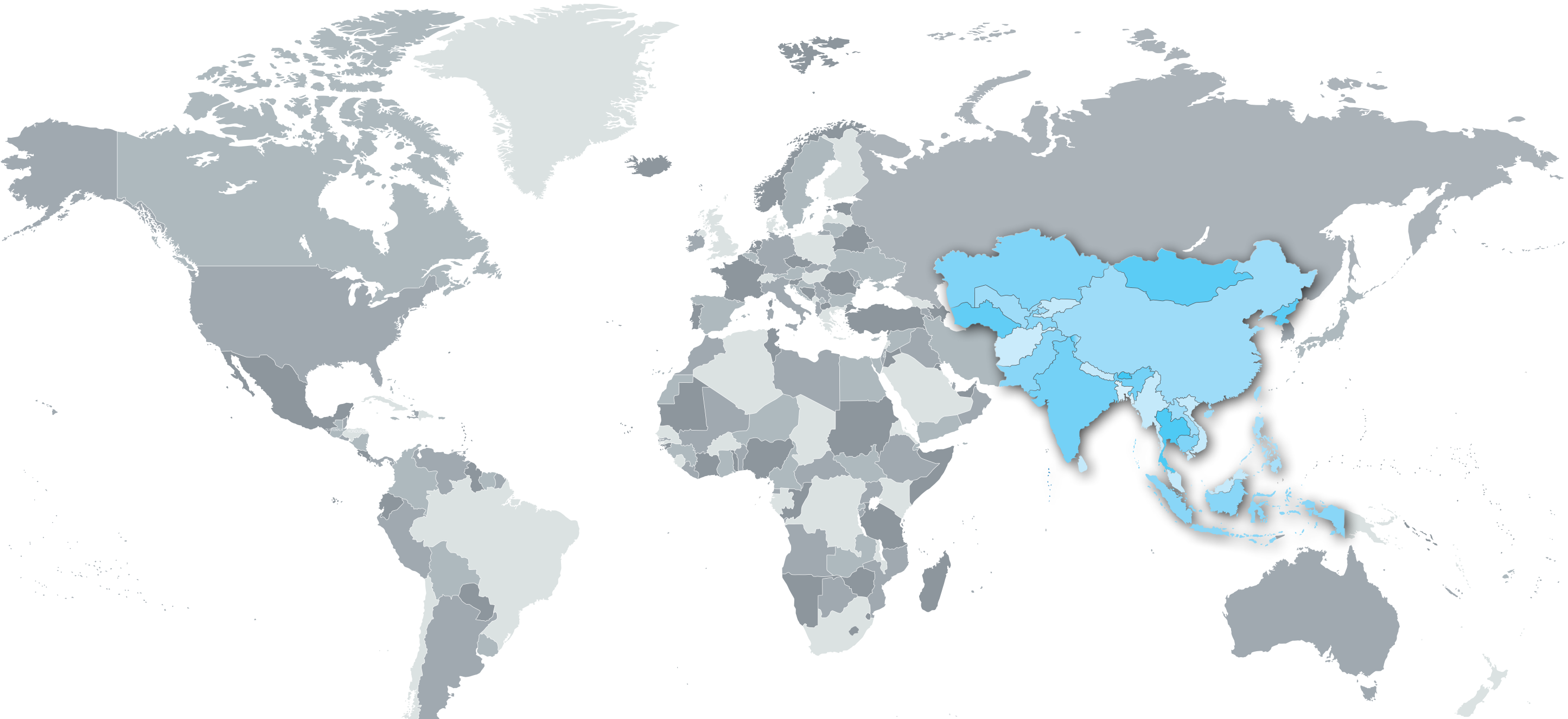
STRENGTHENING POLICY DIALOGUE



The **results of projects** will feed into **policy dialogue** with **Asian governments** for the elaboration and implementation of national policies, regulatory frameworks and policy instruments related to SCP/ Green Economy. This is done in collaboration with the EU Delegations and Focal Points of Ministries in partner countries.



Where We Work



CENTRAL ASIA

SOUTH ASIA

SOUTHEAST AND NORTHEAST ASIA

Kazakhstan	Turkmenistan	Afghanistan	Maldives	Cambodia	Myanmar	China
Kyrgyzstan	Uzbekistan	Bangladesh	Nepal	Indonesia	Philippines	DPRK
Tajikistan		Bhutan	Pakistan	Lao PDR	Thailand	Mongolia
		India	Sri Lanka	Malaysia	Vietnam	

Insights from the SWITCH-Asia Grant and Finance Review

In 2020, the implementation of the SWITCH-Asia grant scheme was assessed and impact reviewed. Based on official policy and technical documents and interviews, projects funded under SWITCH-Asia in the period 2007-2020, responding to 8 calls for proposals, were analysed.

This review draws lessons learned from the economic, environmental and social impacts of these projects with regard to the:

- Adoption of SCP practices by MSMEs becoming more efficient and greener while reducing their environmental impacts and their CO₂ emissions and by consumers in shifting to a more sustainable lifestyle;
- Opportunities represented by the programme in dealing with challenges at regional level;
- Possibility for project's results to be replicated and scaled up within countries/sectors and at regional level, with needed investments;
- Role played by projects in mainstreaming SCP within national/ regional policies, legislations and regulations;
- Contribution of projects to the UN Agenda 2030 and to the Paris agreement;
- Connection with EU SCP-related policies.

An analysis was conducted on projects' objectives and impacts and their relevance to abovementioned policies.

In a second step, a clustering of projects according to economic sectors and SCP practices was conducted.

Finally, an in-depth review of grant projects with financing opportunities, selected on the basis of a substantial financing component, regional and sector balance, was undertaken. A first sketch of business cases was developed for a selected number of projects and their potential contribution to green finance "taxonomy" activities was analysed.

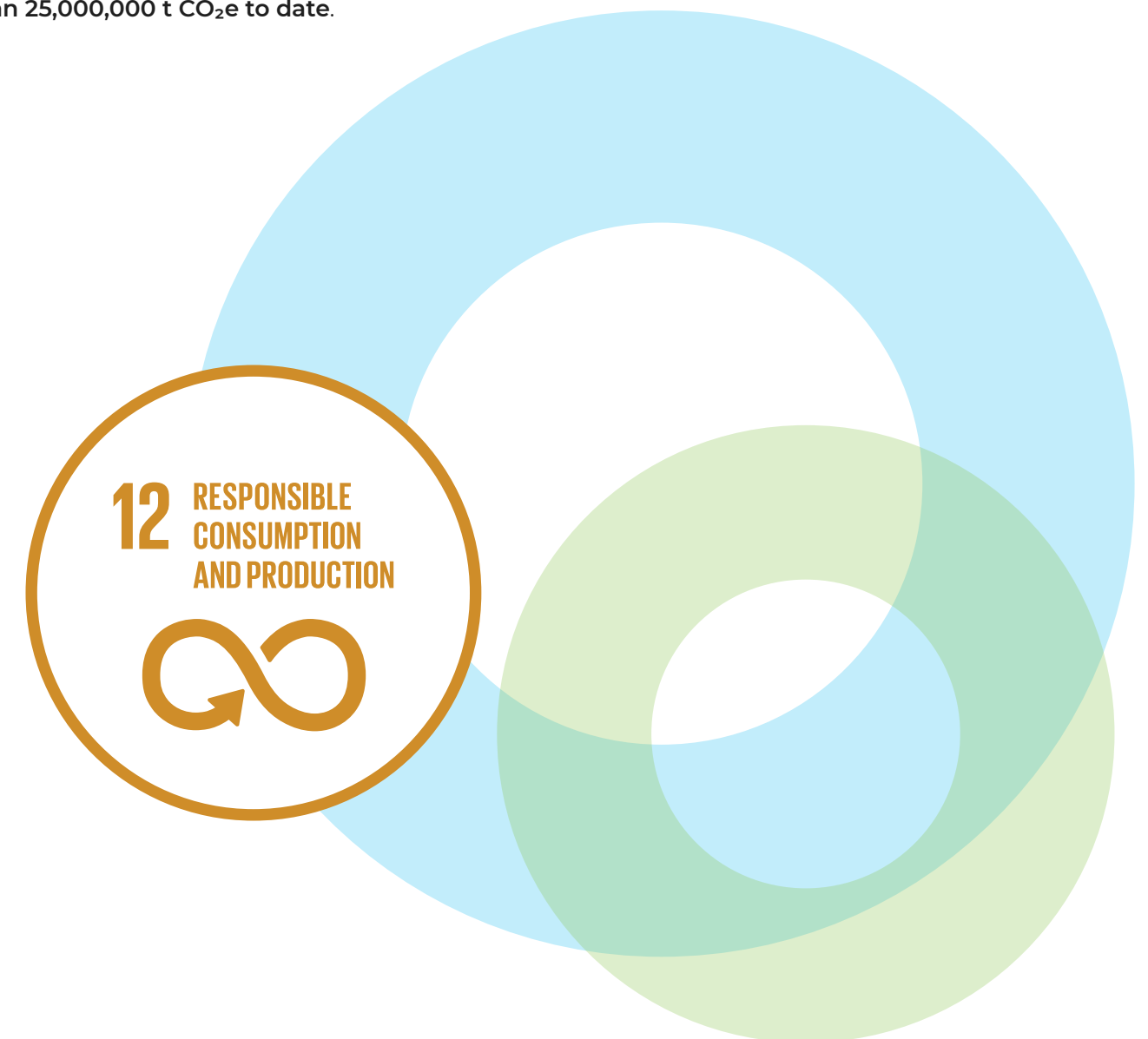
SWITCH-Asia grant projects were clustered into four project types. The majority of grant projects related to the "**Cleaner Production**" and "**Value Chains**" project clusters, focusing either on innovative cleaner production technologies in manufacturing or on strengthening sustainable value chains and business linkages within a specific sector. Fewer projects were part of the two remaining types, addressing the integration of informal sector players into the formal economy ("**Sector Formalisation**") and fostering sustainable consumption patterns and consumer awareness ("**Sustainable Consumption**").

The impact review of SWITCH-Asia grant projects focused on seven result areas, selected on the basis of *DG DEVCO's Sector Indicator Guidance on Green Economy*¹. The quantitative and qualitative analysis of reported data showed substantial impacts of the grant programme since its inception in 2007. Many projects sought out to build relations with key decision makers on the local, regional and national level while deploying innovative processes such as policy prototyping workshops. Thereby, **many grant projects substantially contributed to a more enabling environment for Sustainable Consumption and Production in the target region.**

The uptake of SCP practices by (M)SME is another key impact area of SWITCH-Asia grant projects. Overall, **more than 40,000 business entities reported the adoption of SCP practices** as a result of the SWITCH-Asia project activities, while **more than 27,000 (M)SMEs were reported to achieve sustainability standards certification** as a result of the action.

The SWITCH-Asia grant scheme accounted for significant achievements in decoupling economic growth from environmental degradation and carbon emissions. While reported data on CO₂ emissions reduction varies substantially across projects, mainly explained by the different foci of the actions (e.g. energy-intensive industry vs. small-scale agri-businesses), **completed SWITCH-Asia projects accounted for overall savings of more than 25,000,000 t CO₂e to date.**

Finally, the review specifically focused on access to finance opportunities as a key area for scale-up and replication of SCP practices tested by grant projects. In correspondence to the increased importance of access to finance on the international development agenda, it showed that **finance-related activities of SWITCH-Asia grant projects built up over time.** To date, nearly 66% of grants projects report on financing activities, ranging from successful business case development to securing financing for (M)SME.












¹ <https://europa.eu/capacity4dev/file/97395/download?token=vn3jJEgz>

















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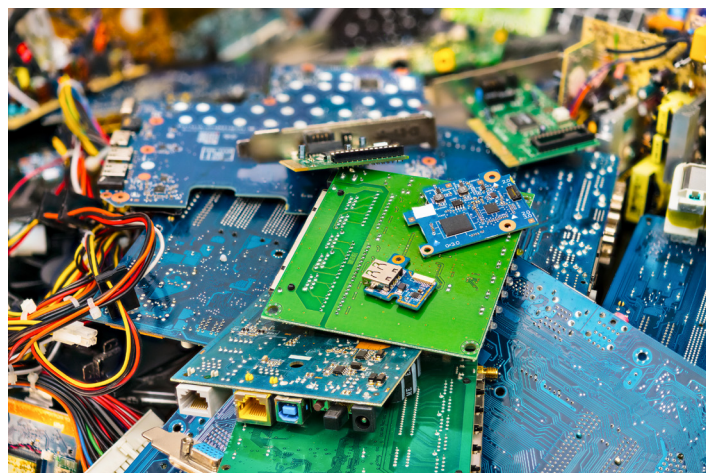
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Switch to Solar

📍 CAMBODIA ● AGRI-FOOD

IMPLEMENTATION PERIOD: 2020-2024
BUDGET: EUR 2,560,000 (EU Contribution 89.84%)



CHALLENGE

Despite Cambodia's success in expanding access to the grid, electricity tariffs are amongst the highest in the region and businesses in rural areas tend to pay up to twice more than in urban, grid-connected areas (from 0.14\$ kW/h in the capital vs. up to 0.25\$ kW/h charged by diesel-powered mini-grids). Expensive and unstable electricity access negatively impacts MSME's operations by raising their operational costs and incurring financial losses caused by unpredictable power outages. Despite the potential return on investment for shifting to solar, MSMEs have limited access to capital, with 60 to 90% using informal channels. In light of growing investments in the agri-/fishery sector and forecasted expansion of economic activities, commercial diffusion of solar solutions for productive use can curb GHG emissions, whilst reducing MSME's operational costs and improve their competitiveness.

OBJECTIVES

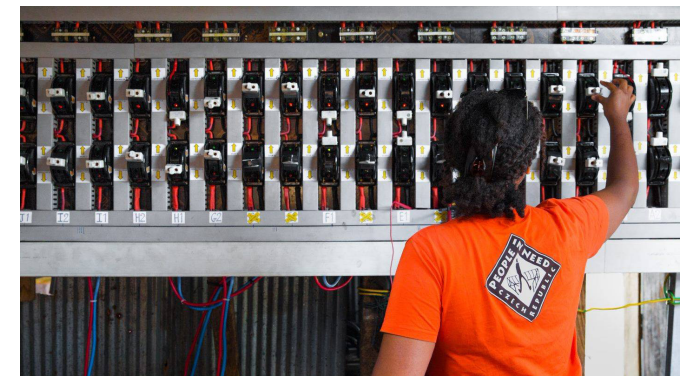
The project will promote sustainable consumption patterns in the Cambodian agri-fishery sector with a focus on agro-processing by encouraging Micro, Small and Medium Enterprises (MSMEs) to adopt Sustainable Consumption Practices, through increased access to solar solutions; and fostering replication through demonstration and access to finance. Awareness raising on SCPs will also be promoted, policy dialogues will be organised, line ministries will be involved in SCP demonstrations and interactions between MSMEs and financial intermediaries will be supported.

Switch to Solar main objective is to contribute to sustainable and inclusive economic growth in rural areas of Cambodia by reducing the environmental impacts of MSMEs energy consumption and generating green employment opportunities. More specifically, the project aims

to improve consumption patterns and behaviours in rural areas of Cambodia by supporting MSMEs to switch from unsustainable energy to solar energy sources.

WAY FORWARD

- Business models and technology solutions are designed, demonstrated and promoted to scale up agri/fishery MSMEs' specific needs;
- Local solar technology providers/entrepreneurs strengthened their capacity and have expanded their operations to better reach MSMEs, and provide new technologies that bring added value to the agri/fisheries sector;
- Targeted MSMEs and consumers have improved awareness and access to a range of solar energy devices, financing options and customer services;
- Improved business environment for solar technology solutions and established synergies among main stakeholders.



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SCAN FOR MORE PROJECT
INFORMATION

Waste to Energy in Rice Milling Sector

CAMBODIA ● AGRI-FOOD

IMPLEMENTATION PERIOD: 1/2012-12/2015
BUDGET: EUR 2,152.546 (EU contribution 89%)



CHALLENGE

In Cambodia paddy is either exported raw or processed through diesel powered engines because of high electricity prices, limited access to technology and logistics resulting into high rice prices in the regional markets. Very few rice millers have access to efficient drying and other processing technology. Access to finance is also another major problem for the rice milling sector. There is a potential to convert rice husk into energy by utilising rice husk gasifier technology. However, there exist no standards for gasification equipment making it difficult for rice mills to decide on the appropriate technology. The price of imported gasifiers is high and many millers do not trust locally manufactured gasifiers. All these factors results into higher processing cost, low quality and low volumes of production.

OBJECTIVES

The overall goal of this project is to contribute towards economic prosperity and poverty reduction and to mitigate the effect of climate change by enhancing competitiveness of the rice sector through increased uptake of environmentally responsible waste to energy (WtE) technologies. Specific objectives of the project are:

- Promote sustainable production of milled rice through replication of existing WtE rice milling technologies, and;
- Promote sustainable transformation and consumption of rice by consolidating fragmented guidelines into a single operational industry standard with policy makers, Small and Medium Enterprises (SME's) and financial sector actors together in a multi-stakeholder platform.

OUTCOMES

- The project established a training package through National Polytechnic Institute of Cambodia (NPIC) for rice millers, SMEs, local technology manufacturers as well as importers;
- Worked on the supply and demand side by building capacity of 4-5 local SMEs manufacturing rice husk gasifiers (RHGs) and 120 rice millers as potential users. A local manufacturing facility was established to manufacture and develop a business unit, and a local technology provider was assigned to operate the facility;
- Collaborated with Nexus and developed a revolving fund of which the objective is to positively impact the agrifood value chain through provision of affordable clean energy, and expectedly barriers and challenges will be overcome through partnerships with organisations in the agrifood sector;
- Collaborated with the Ministry of Industry and Handicraft and Institute of Standards of Cambodia (ISC). ISC produced an OHS Baseline Standard at The Work Place and a final draft for the National Standard of the Safety Manufacturing of RHG.



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LEAD PARTNER

SNV Netherlands Development Organisation (SNV)

PARTNERS

Federation of Cambodian Rice Millers Associations
(FCRMA)
National Polytechnique Institute of Cambodia (NPIC)



SCAN FOR MORE PROJECT
INFORMATION



CAPACITY - SCP models and certification tools in Chinese food supply chains

CHINA
AGRI-FOOD

IMPLEMENTATION PERIOD: 4/2013-3/2016
BUDGET: EUR 1,563,635.76 (EU contribution 80%)



CHALLENGE

In China, the food industry represents a crucial motor for the development of local economy and the society. However, several factors are threatening the sustainability of the sector: a) the environmental impacts (water and energy consumptions and emission of highly organic waste water), b) globalisation and changes in consumers' preferences contributing to the demise of traditional production systems and small companies, c) ethical, health and safe working conditions that are not always ensured (insufficient occupational health and safety measures, limited employment for women and young people, obsolete training programmes), and d) consumers' concern on product quality.

OBJECTIVES

This project aims to provide food SMEs in Sichuan, Henan and Qinghai Provinces with the necessary tools to implement sustainable production and consumption (SCP) practices, especially in the meat processing sector.

The specific objectives include:

- To assist SMEs to adopt best practice in SCP and comply with international food safety regulations and standards, enhancing their integration into global supply chains and markets;
- To ensure the replication of successful

approaches and methodologies by increasing the capacity of business membership organisations (BMOs) and government agencies;

- To promote consumers' informed choices regarding sustainable and eco-efficient produced foods.

OUTCOMES

- Building Capacity of Food Supply Chain Actors
- Creating Awareness
- Supporting SCP Policy Implementation
- Design for Sustainability Method (D4S)
- Framework for Certification and Eco-Label Scheme
- European-Asian Cluster
- Guideline for Best Manufacturing Practices
- Improving Regulatory Framework

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PARTNERS

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China General Chamber of Commerce

China Meat Association

China Society of Commodity Science

Chinese Institute of Food Science and Technology

Institute of Quality Standard and Testing Technology
for Agropducts, Chinese Academy of Agricultural
Sciences



SCAN FOR MORE PROJECT
INFORMATION

Edible Bamboo Shoot - Greening food production and consumption

CHINA

AGRI-FOOD

IMPLEMENTATION PERIOD: 3/2013-2/2017
BUDGET: EUR 2,482,103 (EU contribution 80%)



CHALLENGE

Currently, overuse of preservatives, water pollution and low resource efficiency are pervasive throughout China's agro-food processing industry, including packaged vegetable, fruit and meat products. In the preserved food industry, these unsustainable practices are rife, especially with bamboo shoot preservation and processing. In the Sichuan province, preservatives are often used in concentrations much higher than the maximum allowable limit regulated by China's national standards. This phenomenon not only frustrates consumers and risks market share, but also affects the development of sustainable livelihoods, environmental protection and food safety in China.

OBJECTIVES

The project aims at increasing bamboo shoot markets with economic benefits for 300 bamboo SMEs through a more resource-efficient and a less polluting food processing industry; building a green standardised production value added chain for safe foods in the bamboo industries of Zhejiang and Sichuan Provinces; and replicating successful experiences to 600 other SMEs where the use of polluting preservatives is prevalent.

OUTCOMES

- Conducting market survey on the quality of preserved bamboo shoots and other preserved food products;
- Conducting laboratory tests and analysis of food samples from the market;
- Enabling consumers to identify eco-friendly produced bamboo shoot products through workshop and awareness raising events;
- Building the capacity of 300 SMEs to apply green and clean technologies;
- Demonstrating eco-friendly bamboo and vegetable farming practices to farmers by applying organic farming and offering certification;
- Developing standards for processing green and safe bamboo shoot products.



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International Federation of Organic Agriculture Movements (IFOAM), Germany

Zhejiang A and F University (ZAFU), China



SCAN FOR MORE PROJECT
INFORMATION



Local Harvest - Promoting sustainable and equitable consumption and local food systems

INDONESIA ● AGRI-FOOD

IMPLEMENTATION PERIOD: 2018-2022
BUDGET: EUR 1,999,951.95 (EU contribution 80%)



CHALLENGE

The current food system in Indonesia often ignores the environmental and social aspects, which cause negative impacts on biodiversity, ecosystem resilience and human wellbeing. Furthermore, the growth of 'middle income' consumers presents a clear opportunity to promote healthy, local, sustainable food. As Deloitte's 2015 Indonesian consumer report notes, even consumers with very limited incomes are now less price sensitive and motivated by factors like quality, trust and taste. Women in particular are concerned about healthy diets and willing to pay more for organic produce. In this context, the Indonesian government has adopted regulations to promote more diverse diets (not only rice) and encourage cultivation and consumption of local varieties, respecting traditional knowledge of local and indigenous communities.

OBJECTIVES

The Project's main objective is to contribute to economic prosperity and poverty reduction in Indonesia by promoting a switch to sustainable consumption and production of green, healthy, fair and local food by consumers and MSMEs.

WAY FORWARD

- Develop and disseminate information and educational materials on SCP to relevant stakeholders and public;
- Engage trendsetters/ influencers to deliver messages on SCP in public education and outreach activities;
- Engaged consumers through off line (marketing & educational events) and online medium including through and print media;

- Build the capacity of producers on standards and Participatory Guarantee System (PGS);
- Facilitate access to finance for producers and SMEs;
- Engage retailers and industry buyers for market linkages;
- Conduct a Lifecycle assessment for key products (rice, sago, salt, coffee, forest honey, coconut oil, palm sugar);
- Establish and/or strengthen national and local multi-stakeholder platforms on sustainable food consumption and production;
- Engage national and local governments to support sustainable production and consumption initiatives including promoting recognition of Participatory Guarantee System and standards;
- Work with the Government to ensure increased awareness about and adoption of government standards for eco-products.



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Indonesia (NTFP-EP), Indonesia
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SCAN FOR MORE PROJECT
INFORMATION



MATA KAIL - Promoting SCP in the fish processing sector

📍 INDONESIA ● AGRI-FOOD

IMPLEMENTATION PERIOD: 3/2018-2/2021
BUDGET: EUR 1,999,951.95 (EU contribution 80%)



CHALLENGE

Accounting for 3 per cent of the national GDP, the fishing industry is a major part of the Indonesian agricultural economy. In East Nusa Tenggara Province (NTT) the fishery sector is not only one of the main employment providers but also serves as the basis for consumption patterns of local communities. NTT province is one of the poorest in Indonesia with an unemployment rate of 30 per cent, leaving behind mainly the workforce of young women. Despite the huge potential as income source, there is a lack of value-chain enhancement for the raw fish that is caught. Surveys conducted in the area also indicated the demand for an improvement in quality and fish products' diversification. The low quality of fish products as well as the lack of awareness among

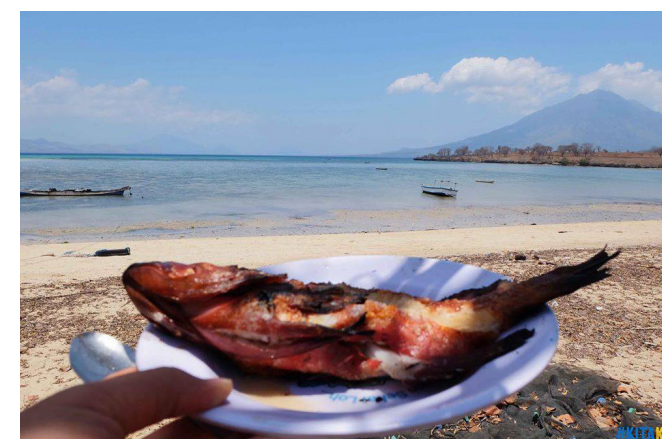
caregivers on healthy nutrition of their children increases the risks of malnutrition. In the project's three target districts, namely Lembata, Nagekeo and Sikka, MSMEs are lacking knowledge on technical capacity on how to use environmentally friendly technology and practices and develop a proper business plan that meets the requirements set by the Ministry of Fisheries. Young women are particularly disadvantaged and they are facing unequal employment opportunities and problems to accessing funds for self-employment and/or skill training. Moreover, caregivers are lacking knowledge on food safety and quality. This greatly affects their daily consumption decisions, as well as those of their children.

OBJECTIVES

Small and Medium-sized Enterprises (SMEs) and Micro, Small and Medium-sized Enterprises (MSMEs) will be empowered to provide environmentally friendly and sustainable processes, products and services in the fisheries sector which will promote employment opportunities for marginalised youth, particularly young women. Knowledge, skills and attitudes of parents and caregivers will also be increased, particularly those of young women.

OUTCOMES

- Based on the results of a market demand research and a value-chain analysis, 160 MSME and SMEs with experience in the fish processing sector will be identified to be trained in environmentally friendly and sustainable technologies in fish storage, fish preservation and fish processing. 1,400 female and 600 male youths aged 15-29 will participate in a training programme which will include modules on: Life Skills, Technical and Vocational Education Training (TVET), Micro-Enterprise Development (MED), and Access to Financial Services. After completion of the training modules, the project team will organise apprenticeships for youths in existing SMEs, in order to develop the skills required to start their own businesses (MSMEs).
- To promote simple messages for sustainable production and consumption, Plan will develop an educational video on sustainable food consumption for families. Furthermore, staff of local health and education institutions will be trained to function as multipliers for sustainable consumption as well as food quality and safety, particularly regarding fish and fish-processed products. Covering the supply side of consumption, a total of 600 youths, parents and caregivers will be trained as retailers of safe and sustainable fish-based food products. To expand the awareness-raising campaign, Plan will closely cooperate with government stakeholders. Local youth organizations will produce video clips to be used in government events, schools and communities promoting the consumption of safe and sustainable food products.



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SCAN FOR MORE PROJECT
INFORMATION

Soybean Processing (SCoPE)

INDONESIA ● AGRI-FOOD

IMPLEMENTATION PERIOD: 2/2012-1/2015
BUDGET: EUR 900,000 (EU contribution 80%)



CHALLENGE

Indonesia's tofu and tempeh industry, with its vast number of micro, small, and medium enterprises (MSMEs), still uses environmentally damaging production practices. The problems in the processed soy-based food industry are inefficiency, inadequate waste disposal, lack of hygiene, insufficient access to credit, and the low awareness of new technologies. Without business development services, support, or regulations, these enterprises suffer from avoidable inefficiencies that not only reduce profitability and productivity, but also lead to environmental damage.

OBJECTIVES

The project aimed at reducing energy consumption and increase sustainable growth in urban food processing industries in Indonesia by promoting sustainable production and consumption of tofu and tempeh.

OUTCOMES

- Set up of 6 demonstration factories equipped with technology, which meets the national food standard regulation for hygiene and consumer safety;
- 590 producers had purchased new equipment used by 771 producers, with 181 producers renting equipment;
- Assisted 150 producers to obtain loans from financial institutions to acquire new equipment;
- Developed training materials for SMEs, including financial literacy, cost benefit analyses, a hygiene manual and a manual on eco-friendly tempeh production;
- Facilitated tofu and tempeh producers to gain the "P-IRT" (household food industry) certificate from the Ministry of Health local offices;
- Strengthened the market for hygienic and eco-friendly tofu and tempeh. The model factory of Rumah Tempe Indonesia (RTI), facilitated by the project, works with an intermediary and distributes fresh tempeh to 78 modern market stores in the Greater Jakarta and Bandung area.



”

I have produced tempeh for over 20 years using a rusty oil drum to boil the soybean and firewood as fuel. I always wanted to produce tempeh in a cleaner manner. This has been made possible through the equipment and knowledge acquired through this project.

Mr. Sudirin
Tempeh Producer, Bogor, West Java



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Indonesian Ministry of Environment (MoE)

The Association for Advancement of Small Business
(PUPUK)



SCAN FOR MORE PROJECT
INFORMATION

Eat Greener - Changing food consumption patterns

LAO PDR ● AGRI-FOOD

IMPLEMENTATION PERIOD: 4/2014-12/2015
BUDGET: EUR 1,238,069.18 (EU contribution 89.84%)



CHALLENGE

Lao PDR is a LDC, landlocked and surrounded by some of competitive and fast-growing countries. To develop its economy the Lao government policy promotes high external input production models. Green and organic products development has become a priority as well, but little incentives are in place as support. This situation represents a threat in many aspects such as small farmers not being able to compete on the local market, promotion of non-sustainable agriculture, dependency on chemical inputs (with raising costs over time), air and water pollution.

OBJECTIVES

The project sought to boost national, ASEAN and European consumption of Lao sustainable food products (organic rice, tea, etc.). Increased demand for Lao greener processed food products would increase their market share and have a positive impact throughout the value chain stakeholders in a sector with high poverty alleviation potential while using environmental resources efficiently.

OUTCOMES

- Structuring a Lao Organic Products Promotion Platform;
- Engaging in consumer awareness campaigns on sustainable food products;
- Supporting green certifications, quality control and supply chain management;
- Promoting eco-labels on local and international markets;
- Linking up SMEs involved in processing, distribution and marketing of green food products with local and international markets;
- Facilitating linkages between green value chain SMEs and financial institutions;
- Reviewing organic promotion policies and supporting political dialogue.



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VZW Oxfam Solidariteit Solidarité ASBL, Belgium

PARTNERS

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Phone Soung Agricultural Development Project (PSADP), Lao PDR



SCAN FOR MORE PROJECT
INFORMATION



Tha Bar Wa - Catalysing sustainable water and energy management in food and beverage industries

MYANMAR ● AGRI-FOOD

IMPLEMENTATION PERIOD: 2/2018-1/2022
BUDGET: EUR 1 800 314.51 (EU contribution 89.38%)



CHALLENGE

Myanmar industries are at a cross-road. Whilst industrial development is critically important for economic growth, if not managed responsibly it could have significant impacts on Myanmar's natural environment and undermine the country's long-term growth. Lessons from across Asia show us that, in the long term, cleaner production benefits both people and the industries themselves. So far, systematic barriers have prevented Myanmar's industries from adopting cleaner production practices. For example, of the 24,000 registered food and beverage industries (F&B) in the country, less than 5% have functioning wastewater treatment. This is a huge concern as based on a survey, industrial wastewater pollution

is considered the biggest risk to the freshwater ecosystem in many of Myanmar's states and regions. Similarly, data suggests that achieving energy efficiency of 20-30% for industries is possible even with low cost measures. In order to address these systematic barriers, different stakeholders must work together to enable and empower industries to adopt cleaner production practices.

OBJECTIVES

Tha Bar Wa project aims to promote cleaner production practices in small and medium-sized enterprises (SMEs) in the Food and Beverage industry. It strives to create an enabling environment by providing technical knowledge and skills, facilitating access to finance and

advocating for policies that incentivise sustainable water and energy management practices. The project will organise industries to build their technical understanding and facilitate access to finance and technology to adopt cleaner production practices. The project will also leverage replication tools to ensure tangible, on the ground, positive impact on the natural environment.

WAY FORWARD

- Two policies and two sector-wide guidelines for cleaner production practices;
- 200 SMEs of the F&B sector and associated business intermediaries gain knowledge and capacity to implement cleaner production technology;
- 30 SMEs implement cleaner production measures and processes and benefit from a 20% improvement in water and energy consumption and discharge performance;
- A pool of 10 local consultants are trained and provide high quality services to SMEs on implementation of cleaner technologies;
- 3 financial institutions enhance their capacity of SME lending for green technology investments;
- 60 bank officers are trained and well-equipped with theoretical and practical skills on SME lending;
- The cleaner production model is replicated in other region and lessons are shared across Southeast Asia.



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Myanmar Food Processors and Exporters Association - Myanmar

Sparkassenstiftung für Internationale Kooperation - Germany



SCAN FOR MORE PROJECT INFORMATION

Consumers and Retailers Driving Sustainable Food Market in Thailand

THAILAND ● AGRI-FOOD

IMPLEMENTATION PERIOD: 1/2018-12/2021
BUDGET: EUR 2,000,000 (EU contribution 80%)



CHALLENGE

The government of Thailand has incorporated sustainable consumption and production in its 5-year national plans and put in place rules and regulations on green industry and green procurement. Industrial standards, awards and green labels to promote responsible consumption and production have also been set-up. However, the investment cost of environmentally-friendly manufacturing to produce ‘green’ goods is still high in Thailand, calling for more tax and credit incentives to make them affordable to smaller businesses and ordinary people. Despite strict laws and policies to regulate the industries and protect consumers, implementation remains a big challenge. Although more consumers are opting for organic produce, heavy use of toxic farm chemicals

is still widespread due to aggressive promotion from agro giants, outdated laws and conflicting interests among different state agencies.

OBJECTIVES

- An overall food market transformation in Thailand that requires environmentally sustainable and socially ethical production and food safety as standards of production;
- Urban consumers and retailers in Thailand drive the development of a food market system that increases sustainable food consumption, particularly in the seafood, banana and chicken chains.

WAY FORWARD

- Women and men urban consumers in the target cities and online platforms increasingly demand target food products that meet sustainable and equitable sourcing standards from retailers;
- Retailers introduce more sustainable and equitable sourcing standards in the target food supply chains;
- MSMEs of food producers and suppliers strengthen production capacities and sustainable sourcing for supplying retailers and traditional wet markets;
- Existing and new multi-stakeholder platforms (MSPs) are strengthened to influence large agribusiness’ practice and government policies for SCP in target food supply chains.



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SCAN FOR MORE PROJECT INFORMATION



Biomass Gasification Technology (BEST)

VIETNAM ● AGRI-FOOD

IMPLEMENTATION PERIOD: 2020-2024
BUDGET: EUR 3,041,814 (EU contribution 80%)



CHALLENGE

Huge agricultural residue resource in Vietnam is being dumped and burned as wastes, causing environmental pollution. According to the statistics of the Ministry of Industry and Trade (MOIT) in 2017, agricultural production in Vietnam annually generates 79 million tonnes of agricultural residues, mainly including rice husk and straw, corn plants, corn cobs, cassava plants, coconut and sugarcane fibres. Residues of wood processing factories are around 5.3 million tonnes.

For agri-MSEs, switching to a cleaner and cheaper source of energy has become an urgent need. A proper biomass-based energy technology which could transform agricultural residues into fuel for heat generation will not only meet the need, but also contribute to reducing rural pollution. Although several biomass energy equipment models have been introduced to the Vietnam

market, none of them have been widely adopted by businesses. Even the government has policies to encourage investments in biomass energy, they have not achieved strong buy-in from investors. The root cause of the situation is lack of biomass technology design and comprehensive solutions that are tailored to the scattered dispersal of biomass sources in Vietnam and to the financial and technical capacity of local enterprises.

OBJECTIVES

Tha Bar Wa project aims to promote cleaner The project aims to promote sustainable production and sustainable energy consumption among agri-food processing micro and small enterprises (agri-MSEs) and also to contribute to waste management in Vietnam, by scaling up the deployment of environmentally friendly and low-cost volumetric continuous biomass gasification (VCBG) technology. The VCBG has been piloted

with success in Thai Nguyen province since 2017 by Oxfam in Vietnam and the Centre for Creativity and Sustainability (CCS). Beyond merely introducing the technology to local agri-MSEs, the project will develop the whole ecosystem for VCBG deployment among thousands of agri-MSEs in the four Northwest mountainous provinces of Thai Nguyen, Son La, Tuyen Quang and Yen Bai, including the promotion of low-cost and high-quality VCBG to thousands of agri-MSEs, development of local mechanical and biomass service systems, and advocacy for further replication to other industries, other regions in Vietnam and through national policies and mechanisms.

WAY FORWARD

- Agri-MSEs in four provinces (Thai Nguyen, Tuyen Quang, Son La and Yen Bai) achieve improved product quality and efficient energy consumption and contribute to managing rural waste;
- Increased availability of mechanical and biomass supply services in the local and access to finance for not only agri-MSEs to deploy VCBG consistently but also mechanical and biomass supply service providers;
- Buy in and support from relevant government agencies for further adoption and replication of VCBG in agri-food processing and other industries.



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SCAN FOR MORE PROJECT INFORMATION

Establishing a Sustainable Pangasius Supply Chain in Vietnam (SUPA)

VIETNAM ● AGRI-FOOD

IMPLEMENTATION PERIOD: 4/2013-3/2017
BUDGET: EUR 2,372,437 (EU contribution 80%)



CHALLENGE

The Vietnamese aquaculture's significance for the country cannot be overestimated. The sector supplies over 90 % of the world pangasius export and hundred thousands Vietnamese depend on it. Instead of its rapid growth, there is a huge concern of the environmental and social impacts of pangasius farms and processing facilities. Uneaten feed, unused medication and untreated chemicals often escape the farm and enter the rivers. Producers' general lack of knowledge results in poor quality products, leading processors and producers to compete on price rather than quality or added value.

OBJECTIVES

The project aims that by the end of its action at least 70% of the targeted middle to large pangasius producing and processing SMEs, and 30% of the feed producers, hatcheries and small independent production SMEs are actively engaged in resource efficiency and cleaner production (RE-CP); and at least 50% of targeted processing SMEs are providing sustainable products with Aquaculture Stewardship Council (ASC) standard to EU and other markets.

OUTCOMES

- Defining the model farm and setting up training centre;
- Identifying potential buyers and conducting awareness raising in the EU;
- Conducting capacity building on market requirements;
- Conducting study tours to model farm and leading companies;
- Providing capacity building for Vietnam national experts on international legislation regarding seafood markets;
- Providing advisory support in developing "bankable" investment proposals;
- Providing one-to-one support for ASC certification;
- Establishing synergies between feed producers and production and processing SMEs.



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Through SUPA project assistance, we have achieved cost savings in our production, specifically, a reduction in energy consumption by 7-8 % per year, which is equivalent to VND 1 billion (EUR 40,000). We also reduced water consumption by 5-6%, which is equivalent to VND 50 million (EUR 2,000) per year.

Nguyen Duc Long

Director of Production Service Sector,
Asia Commerce Fisheries Joint Stock Company
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WWF Austria
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SCAN FOR MORE PROJECT
INFORMATION



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

VIETNAM ● AGRIFOOD



CHALLENGE

In many countries, eco agriculture and Fair Trade are emerging as a promising agricultural development strategy, particularly in economic plans such as the national socio-economic development lagging areas away from the Mekong corridor. The newly signed EVFTA (European Union Vietnam Free Trade Agreement) between the EU and Vietnam has a specific clause related to promoting eco-fair products; however, challenges persist. The barriers to a certified eco-fair supply chain in agri-food processing in Vietnam are threefold: firstly, the capacity of MSMEs on fair and eco development are still limited. Most MSMEs have no strategic plan for sustainable development, and there is limited capacity for producing and marketing eco-fair products, as well as accessing green technology, sustainable design, and green financing. Secondly, the awareness of MSMEs, consumer groups, civil

society stakeholders, and the public sector is still limited. Thirdly, there is no existing cost-effective service provider to help consumers get access to eco-fair agri-food processing products from Vietnam.

OBJECTIVES

The project addresses sustainable supply chain management with a focus on green trade and facilitating the integration of MSMEs into supply chains. It will support sustainable consumption and consumer awareness on SCP, and will build the capacity of eco-fair MSMEs, creating an enabling environment to strengthen the implementation of national SCP policies. More specifically, the project will:

- Enhance the capacity of MSMEs to implement sustainable production and product innovation practices in the agri-food supply chain;

- Raise awareness of a large consumer group about sustainable consumption behaviours and build a network to promote the eco-fair label;
- Use a sustainable E-platform to build an eco-fair retailer network;
- Enhance the capacity of eco-fair MSMEs to access financing;
- Support policy development on eco-fair production and consumption in Asia.

WAY FORWARD

- Effective outreach to a large number of MSMEs facilitated;
- Readiness of sustainable production on the supply chain enhanced through strategic transition toward circular economy, through increasing production capacity and marketing of sustainable consumption opportunities, specifically eco-fair labels;
- Effective outreach to large consumer groups (500,000) facilitated. Awareness raised among consumers on eco-fair labels and benefits of adopting sustainable consumption practices;
- Sustainable E-platform and eco-fair retailer network established to promote and replicate eco-fair practices towards producer MSMEs, consumers and civil society organisations in Vietnam, as well as trade associations and other export organisations to reach EU importers;
- Capacity of eco-fair MSMEs enhanced to increase their access to finance;
- Enabling environment created to strengthen the implementation of national eco-fair policies in Vietnam and to assist stakeholders in harvesting benefits of eco-fair consumption and production.



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Funzilife Oy Ltd (Funzi)

Vietnam Cleaner Production Centre Co.Ltd (VNCPC)



SCAN FOR MORE PROJECT INFORMATION

Sustainable and Equitable Shrimp Production and Value Chain Development in Vietnam (SusV)

VIETNAM ● AGRI-FOOD

IMPLEMENTATION PERIOD: 3/2016-3/2020
BUDGET: EUR 2,006,198.84 (EU contribution 80%)



CHALLENGE

Shrimp is an important source of livelihood to more than one million people in Vietnam, from which over 80% are small-scale shrimp producers. The project mainly focuses on three Mekong Delta provinces (Ca Mau, Soc Trang and Bac Lieu), which altogether contribute to 93% of shrimp farming area and 84.4% of Vietnam's shrimp production. The development of aquaculture in these provinces is crucial to the development of Vietnam shrimp industry as well as the development of policies at the national level.

OBJECTIVES

The project aims to reduce negative impacts on biodiversity and water sources. In addition, it will increase resources efficiency (water, energy and feed), ensure sustainable livelihoods and improve the economic condition of SME shrimp processor and small scale shrimp producers, especially women. At the same time, through responsible standards compliance, the project improves labour and working conditions, especially for female workers.

OUTCOMES

- 600 shrimp producers (of 30 collaborative producer groups) comply with the p-SIA and B-EIA standards of ASC, 50% of these producers comply with VietGAP (Vietnam Good Aquaculture Practice) and 30 SME shrimp processors adopt CSR norms;
- 600 shrimp producers and 30 processors have improved management practices and/or technologies leading to more efficient production and a better utilisation of available natural resources;
- 200 shrimp producers/ processors have access to loans from Government Policies or other sources to promote sustainable aquaculture development;
- 4 small scale shrimp producer groups are strengthened and have enhanced responsible production practices with equitable benefits sharing;
- Government's policy on the value chain development model is developed in a participatory manner and implemented effectively in the shrimp value chain in 3 provinces.



”

Vietnam SusV has substantially contributed to the transformation of the shrimp aquaculture toward a more sustainable and responsible industry. Almost 2,500 small-scale producers and 30 processing enterprises have adjusted their business practices to become more environmentally friendly, socially responsible and resource efficient.

Nguyen Hung Cuong
Project Manager
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LEAD PARTNER

Stichting Oxfam Novib (Oxfam)

PARTNERS

International Collaborating Centre for Aquaculture and Fisheries Sustainability (ICAFIS)



SCAN FOR MORE PROJECT
INFORMATION

Jute Diversified Products

BANGLADESH
 AGRI-FOOD

IMPLEMENTATION PERIOD: 3/2013-8/2016
 BUDGET: EUR 2,222,170 (EU Contribution 90%)



CHALLENGE

Jute (known as the Golden Fibre) played a significant role in the economic prospect of Bangladesh. Over the recent past years, the Jute Diversified Products (JDPs) received further attention as the natural character of jute fibre attracts consumers. However, the jute growers are facing problems to access good quality and high yielding seeds and appropriate technologies to reduce cost of production. Moreover, due to the fragmentation of the rural market chain, the growers are not getting a fair price for their production. This leads less interest to cultivate jute. The workers engaged in production lack adequate skills for maintaining quality of products and hence lose the interest of buyers.

OBJECTIVES

The project seeks to contribute to pro-poor economic growth through social business promotion with an emphasis on sustainable agriculture sector growth and poverty reduction in Bangladesh. Specifically it aims at strengthening the exports competitiveness of Bangladesh through promotion of environment friendly jute diversified products.

OUTCOMES

- Workforce empowerment of poor men and women working in the jute supply chain through skills development, microenterprise training, business and professional training;
- Mobilisation and promotion of producers' & small entrepreneurs' groups to improve productivity and market access;
- Development of producers' groups for technology transfer for high yield jute variety and retting;
- Value addition processing, diversification and packaging of jute products through business and market intermediaries' engagement;
- Marketing and development of jute supply chain;
- Promotion of efficient public-private partnership;
- Partnership and engagement of public-private institutions.

Through this project, major changes are occurring in the jute sector. Farmers have benefitted directly through trainings and practical advices. The poor were also trained and this has provided them with an entirely new income source and possibility to expose their products to local and international markets.

Md. Julficker Islam
 PM, ESDO, Kurigram

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 UTTARAN



SCAN FOR MORE PROJECT
 INFORMATION

Tomato and Mango Value Chain - Improving consumer awareness and access to certified safe tomato and mango products

📍 BANGLADESH ● AGRI-FOOD

IMPLEMENTATION PERIOD: 1/2016-12/2019
BUDGET: EUR 1,999,811 (EU Contribution 90%)



CHALLENGE

Food safety in the Bangladeshi fruit and vegetable sector is an area of increasing concern. The consumers have lost confidence in locally produced foodstuffs. The current intense political and consumer pressure on the horticultural industry has urged the sector to adhere to food safety levels. With the legal framework for food safety in place and a strong market demand for sustainable and safe produce, there is now a conducive environment for change.

OBJECTIVES

The project seeks to contribute to greater consumer confidence in domestically produced processed horticultural products, reduced food safety incidences in the domestically processed horticultural products, and inclusive business development in the fruit and vegetable processing industry. At the end of the four- year project at least 50% of the domestically processed tomato and mango products marketed and consumed in Bangladesh will be certified safe.

OUTCOMES

- Conducting survey and enhancing consumer awareness on safe domestically produced mango and tomato products;
- Establishing public-private agreement on a transparent and independently verifiable food safety assurance system;
- Setting up food safety standards;
- Building the capacity of supply chain actors using the “train the trainers” approach based on need assessment;
- Applying certification and communicating the results;
- Promote and support a transition towards sustainable and safe food markets from ‘field to fork’ in Bangladesh.



”

The results attained from this project were unique in the context of Bangladesh. For the first time, beneficiary farmer groups attained food safety certification HACCP and a Covenant on Food Safety was signed by public-private entities in the country.

Mahbub Ullah
Project Coordinator, SNV



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PARTNERS

Centre of Excellence Agro Food Skills Foundation
(CEAFS)

Consumers Association of Bangladesh (CAB)



SCAN FOR MORE PROJECT
INFORMATION

SEID - Sustainable and Efficient Industrial Development in Bhutan and Nepal

📍 BHUTAN, NEPAL

● AGRI-FOOD

IMPLEMENTATION PERIOD: 2/2012-11/2015
BUDGET: EUR 2,160,000 (EU Contribution 90%)



CHALLENGE

Landlocked countries, Nepal and Bhutan, are among the least developed countries (LDCs), with 77% of the population in Nepal and 49% in Bhutan living under poverty line (2010 data). Urban and rural dwellers in Nepal suffer from an acute energy crisis. Nepal also faces challenges to revive its tourism industry, which is affected by the recent earthquake. Bhutan's economy depends heavily on imported goods and services, and local enterprises have difficulties in creating their own competence, which is pivotal for the future sustainability of the country's economy and society. In both countries, there is great potential in development of the agro-based and tourism sectors, considering the climate and topographical conditions, as well as their rich cultural and historical heritage.

OBJECTIVES

The project aims to contribute to sustainable development of Nepal and Bhutan through the reduction of environmental impact of industry, employment generation, and poverty alleviation, particularly in the tourism and agro-based industrial sectors. The specific objectives are:

- To reduce costs by saving resources with more efficient production and operation processes;
- To lower pollution by encouraging companies to implement appropriate treatment measures;
- To improve health and safety standards for workers;
- To enhance capacity of national consultants through training and field work;

- To provide access to existing knowledge and practice for sustainable consumption and production (SCP) from inter/national initiatives, as well as green financing schemes.

OUTCOMES

- More than 40 local consultants and representatives from industries and academia have received intensive training on resource and energy efficiency, waste management, renewable energy and building energy performance;
- Ten Green Clubs (with 745 members in Bhutan and Nepal) have been established to promote the concept of environmental conservation;
- More than 200 MSMEs are receiving SEID's consultation services and most are benefitting from reduced operational costs and optimised resource efficiency, as well as improved working environments;
- Developed appropriate technology solutions such as solar water heaters for hotels, dust collection systems for beaten rice mills, and improved cook stoves for restaurants;
- Established strategic networks. Formal agreements have been signed with a number of selected academic, governmental and business institutions;
- Mainstreamed RE and RP in policies. Governmental bodies and business associations have been provided with practical suggestions on how to implement and/or revise the existing policy documents, such as hotel rating standards and a cleaner production policy paper in Nepal; and green building guidelines and a subsidy programme for renewable energy (RE) technology in Bhutan.

”

We have learned energy and resource efficiency techniques that allowed us to minimise our energy and resource consumption, resulting not only in cost savings, but also in more market competitiveness.

Saguni Singh Shakya

Manager
Kathmandu Guest House, Nepal

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Austria Recycling (AREC)

Bhutan Chamber of Commerce and Industry, Bhutan

Federation of Nepalese Chamber of Commerce and Industries (FNCCI), Nepal

STENUM Asia Sustainable Development Society (STENUM Asia)



SCAN FOR MORE PROJECT INFORMATION

Agribusiness Access to finance



INDIA

● AGRI-FOOD

IMPLEMENTATION PERIOD: 4/2014-3/2018
BUDGET: EUR 1,258,496 (EU Contribution 79.45%)



CHALLENGE

Having an important contribution to India's economy, micro, small and medium-sized enterprises (MSMEs) have the potential to catalyse an important shift towards green and fair production, hence supplying consumer markets with green and fair product options. The intent is strong among agribusiness MSMEs in India to adopt sustainable production practices. However, various constraints prevent them, namely technical ability, consistent market for green products and available working capital.

OBJECTIVES

The project promotes an increased adoption of sustainable technologies by MSMEs. It specifically targets three challenge areas that are promotion of sustainable practices across the supply chain, access to finance for adopting sustainable procurement and production practices, and promotion of sustainable consumption through certified production.

WAY FORWARD

- Providing capacity building for 30 agribusiness MSMEs to enable adoption of sustainable post-harvest production practices;
- Creating access to working capital for 30 MSMEs agreeing to adopt sustainable production with the commercial banking sector;
- Facilitating market linkages for 30 MSMEs with at least 20 corporate buyers of certified products;
- Conducting consumer campaigns targeting 10,000,000 urban middle class Indian consumers of certified products from the 30 MSMEs.

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PARTNERS

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International Resources for Fairer Trade (IRFT), India



SCAN FOR MORE PROJECT
INFORMATION



Bhoomi Ka - Promoting sustainable consumption and production systems for safe and organic foods in India



INDIA

● AGRI-FOOD

IMPLEMENTATION PERIOD: 1/2018-12/2021
BUDGET: EUR 1,146,098.40 (EU Contribution 80%)



CHALLENGE

The Right to safe, uncontaminated and nutritious food is a fundamental right. In India, the Food Safety and Standards Act of 2006 provides necessary safeguards to the citizens in order to maintain the quality of food. However, dangerous toxins in food have been threatening human and environmental health since the last few decades due to ever increasing use of pesticides, agrochemicals, antibiotics, hormones, ripening chemicals, chemical additives, and flavours. India has at least 48 pesticides/ herbicides in use, which have been banned in other countries. Therefore, on one hand, it becomes extremely important to regulate the indiscriminate use of agrochemicals in agriculture by giving alternatives to farmers, on the other hand, consumers need to be educated and informed on choices they have.

OBJECTIVES

The overall objective of the project is to contribute to sustainable local food systems that safeguard public and environmental health and promote sustainable smallholder agriculture. The project aims to achieve this through an increased demand for, and supply of clean, green and fair foods in selected Indian towns, promoting the switch to sustainable food consumption and production patterns.

WAY FORWARD

- Enhance through sustained campaigning availability, access and credibility of consumer information on organic and local foods;
- Identified retailers and brand owners have extended outreach, and organic producer collectives enhance value addition and market access;
- Policy advocacy is undertaken to create an enabling environment for protecting consumers and promoting the domestic market for local organic foods.



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SCAN FOR MORE PROJECT INFORMATION

Green Retail India

INDIA

AGRI-FOOD

IMPLEMENTATION PERIOD: 1/2013-8/2016
BUDGET: EUR 2,383,517 (EU Contribution 80%)



CHALLENGE

The Food & Beverage (F&B) sector constitutes about 60 % of the retail sector, and the energy consumption by retailers accounts for 15% of their operational cost. The F&B sector also generates large amounts of waste. Around 40% of food production in India is estimated to be wasted due to improper handling, transportation and storage, where retailers can play a role in reducing the wastage. The sector also contributes towards environmental pollution (transportation of goods and the carbon footprint of the SME suppliers).

OBJECTIVES

The project aims at instilling sustainable thinking and adoption of sustainable approaches in a large retail chain's strategy, operation and marketing; driving sustainable practices in the supply chain of retailers; and educating consumers on sustainable consumption and creating a favorable climate for the adoption of sustainable practices across the retail value chain.

OUTCOMES

- Developing and implementing customised Sustainability Business Models for retailers;
- Enabling SME suppliers to adopt approaches, techniques, tools and technology to align SCP practices into the core of their business practices;
- Linking up Indian retailers with major European retailers by visits to Europe, to trade fairs/forum and business networking sessions;
- Developing and implementing Go-Green Strategy to sensitise and educate consumers on green products and choices towards creating a market demand for sustainable products;
- Promoting policy action to promote sustainability in the Indian retail sector through measures such as formulation of enabling instruments and policies for demand-side pull.

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Collaborating Centre on Sustainable Consumption and Production GGBH

Retailers' Association of India (RAI), India

STENUM Asia Sustainable Development Society (STENUM Asia)



SCAN FOR MORE PROJECT
INFORMATION

Promote Bamboo MSME Clusters for Sustainable Development

INDIA

AGRI-FOOD

IMPLEMENTATION PERIOD: 1/2018-12/2021
BUDGET: EUR 2,499,824 (EU Contribution 90%)



CHALLENGE

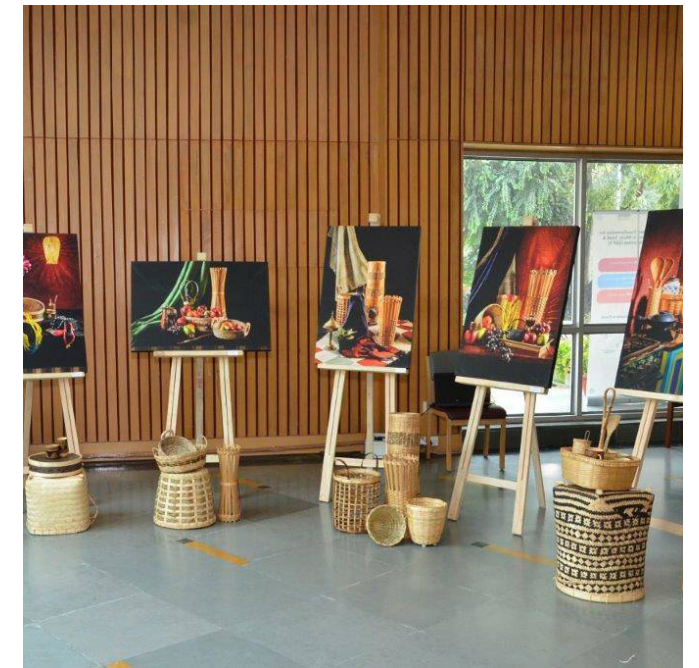
There are more than 5 million people, half of them being women in the tribal regions across 18 states out of the 29 states of India where abundant quantity of bamboo is available as a resource for their livelihoods. However, in the bamboo processing and product manufacturing segment, the number is likely to be only around 3 million. While bamboo has been augmented by a range of public initiatives, it is not sufficiently harnessed in terms of its market applications. There is a huge scope for replacement of less sustainable resources like timber, plastic, steel, etc. and for creation of green jobs by effectively harnessing bamboo by upgrading existing products and introducing new products duly linked with markets.

OBJECTIVES

The overall objective of this project is to promote bamboo as a sustainable resource and generate green jobs. The activities are designed to help local communities and other stakeholders to collaborate for the promotion of a green economy, sustainable growth, economic prosperity and poverty reduction in India along with mitigation of climate change.

WAY FORWARD

- 2250 MSMEs of which 40% are owned by women owned, start or expand bamboo product supply worth 25.3 million Euros to existing or new markets, impacting 10,000 livelihoods (more than 50% women) through new income to the tune of 13 million Euros;
- Improved OHS and social security.
- At least 20 new buyers undertake sourcing of 5 high potential bamboo products in each of the targeted clusters through 20 successful business start-ups;
- 9 local Facilitating Agencies (FAs) provide services beyond Action; 50 Producer Networks (PNs) created; 9 CFCs created and strengthened; 20 equipment/ inputs suppliers and 140 BDSPs provide strategic services sustainably;
- At least 10 FIs provide credit through cluster financing instruments to 2250 MSMEs worth 9 million Euros;
- 200 Policy makers from at least 3 SAARC countries sensitised and 9 Indian states initiate replication of similar intervention models.



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Foundation for MSME Clusters (FMC)

PARTNERS

Common Wealth Educational Media Centre for Asia (CEMCA)

Copenhagen Business School (CBS)

Small Industries Development Bank of India



SCAN FOR MORE PROJECT
INFORMATION



HP Cogen-PAK - Empowering sugar mills and stakeholders in the sugar sector to adopt energy efficient technology

PAKISTAN ● AGRI-FOOD

IMPLEMENTATION PERIOD: 2/2014-1/2018
BUDGET: EUR 2,161,785 (EU Contribution 79.80%)



CHALLENGE

At the project's inception, Pakistan's sugar sector had an annual availability of 4.4 million metric tons of bagasse i.e. sugar mill waste. To generate heat and electricity for its energy needs, the sugar sector used inefficient low pressure cogeneration (LPC) systems, consuming 46% more bagasse compared to high pressure cogeneration (HPC). However, adoption of HPC was hampered by high upfront costs, technology risks, low capacity among technology providers, a non-responsive financial sector and a non-conductive regulatory regime.

OBJECTIVES

The objectives of the HP Cogen-Pak project were to build the capacity of the sugar sector, focusing on promotion of high pressure cogeneration (HPC) technology among sugar mills classified as Small and Medium Enterprises (SMEs) and improving access to finance, leading to reduction of GHG emissions. The specific objectives included:

- Promoting sustainable production of energy, and export surplus electrical power to the national grid, through replication of existing HPC technology in the sugar sector;
- Promoting sustainable consumption of bagasse by supporting sugar mills in the adoption HPC technology, through technology

standardisation, enabling access to finance, and mobilising relevant public sector authorities for the formulation of a conducive regulatory regime for bagasse-based power projects.

OUTCOMES

- The project successfully developed an excel based model/study for determining the cost of power generation for bagasse-based cogeneration projects. The study was shared with NEPRA;
- The National Bagasse Power Support Cell (NBPSC) was created at the HP Cogen-Pak Project office in Lahore. The NBPSC reached out to the 85 sugar mills (the main beneficiaries of the project), providing them support in the adoption of the limited time option of an Upfront Tariff for Bagasse Cogeneration offered by NEPRA. Of the 85 sugar mills, 72 registered in the project;
- The NBPSC completed the development of the detailed bankable feasibility studies for HPC for 10 Sugar Mills. Furthermore, pre-feasibility studies (business cases) were developed for 50 sugar mills registered in the program;
- A total of EUR 8.38 million was saved per SME, per year on average;
- Compared to LPC technology, HPC technology consumes 45% less bagasse, thus, increasing resource and energy efficiency. HPC saves 60 m³ water per hour for 120 days of crushing season, which equals to 172,800 m³/year for a single 30 MW HPC plant;
- The HP Cogen-Pak project estimated a reduction of 2.125 million tonnes of CO₂ equivalent per year once all the mills switch to HPC technology.

”

The project developed a conducive environment for sugar mills to export surplus energy to the grid with HPC technology. Given the energy constraints faced by Pakistan, promotion of this technology not only helped with energy security, it did so in a sustain-able way, generating electricity from abundant fuels.

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PARTNERS

Pakistan Sugar Mills Association (PSMA)

sequa gGmbH

The Energy and Resources Institute (TERI)



SCAN FOR MORE PROJECT
INFORMATION

IREET - Implementation of Resource and Energy Efficient Technologies in Sugar Sector

PAKISTAN

AGRI-FOOD

IMPLEMENTATION PERIOD: 2/2018-1/2022
BUDGET: EUR 1,436,160 (EU Contribution 79.77%)



CHALLENGE

Most sugar mills in Pakistan use outdated technologies and practices (i.e. use of Robert type evaporators, 3-5 rollers mills and inefficient low-pressure boilers) for sugar production, resulting in high inefficiencies, wastage of resources and increased cost of production. Majority of the sugar mills have a high specific energy consumption of over 1250 MJ/ton of sugarcane (due to high steam-on-cane ratio in the order of 52% and high electricity consumption to the tune of 24 kWh/tons of cane crushed). Moreover, they are using low-pressure boilers which typically have efficiencies in the range of 65-75%, as compared to over 90% for modern high-pressure boilers. There is significant potential for upgrading the milling processes in the industry to save bagasse, which is generated as a by-product of

the cane crushing process, from being burnt inefficiently as fuel in boilers. Approximately 70% of the bagasse produced is currently consumed by the sugar industry itself to meet its energy requirements. Bagasse consumption of sugar mills can be significantly reduced by introducing energy efficient technologies, adoption of best practices and appropriate retrofitting. The saved bagasse can be utilised for power generation, and subsequently exporting the surplus power to the national grid. This project will target the provinces of Sindh, KPK, and Punjab in Pakistan.

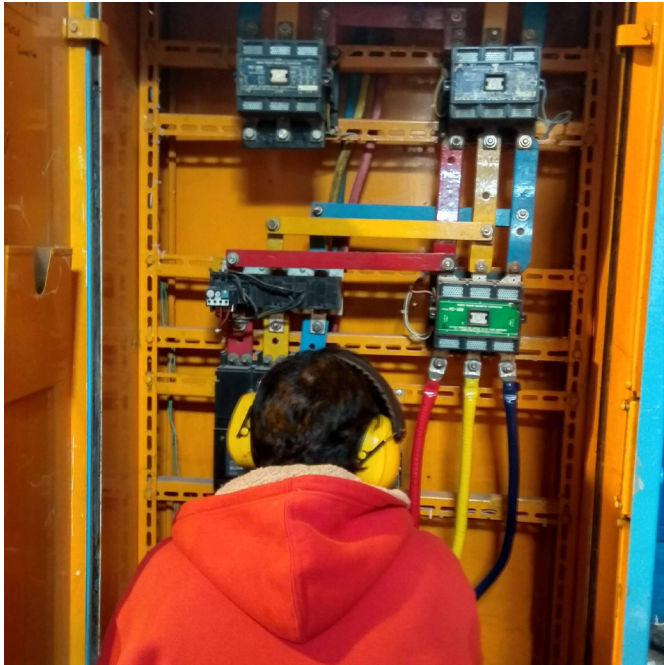
OBJECTIVES

The project aims to promote sustainable production of sugar through reduction in specific energy consumption of the sugar mill. In addition, it aims to promote sustainable consumption

of bagasse (renewable sugar mill waste) by supporting sugar mills in the adoption of energy efficient (technical innovations), and resource efficient (resource efficiency) technologies through technology standardisation, enabling access to finance, and mobilising of relevant public sector authorities for the formulation of a conducive regulatory regime for the promotion of R&EE in the sugar sector.

WAY FORWARD

- 70 Sugar Mills owners supported in adopting R&EE technology through business cases developed by the action;
- 30 Sugar Mills trained on selection of R&EE technologies based on Standardized Technical Specifications developed by the action;
- 5 Local Solution Providers enabled to offer standardized R&EE technology to Sugar Industry;
- 5 Service Providers enabled to provide auditing services to the sugar sector;
- Improved availability of Capital for R&EE Technology through 5 participating Financial Institutions (FIs) offering concessional loans using SBP's R&EE Financing Scheme;
- Revised National Energy Conservation Policy;
- 10 R&EE projects achieving Financial Closure/ Implemented by Sugar Mills;
- 12% reduction in Energy Consumption (steam-on-cane ratio, reduced from 52% to 46%);
- 10% reduction in Water usage;
- 600,000 tCO₂/year avoided.



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PARTNERS

Collaborating Centre on Sustainable Consumption and Production GGMBH

World Alliance for Thai Decentralised Energy - Thailand (WADE THAI)



SCAN FOR MORE PROJECT
INFORMATION

Sustainable Production in the Food and Beverage Industry in Sri Lanka

📍 SRI LANKA

● AGRI-FOOD

IMPLEMENTATION PERIOD: 1/2009-12/2012
BUDGET: EUR 1,985,191 (EU Contribution 80%)



CHALLENGE

The food and beverage (F&B) industry is an important sector of the Sri Lankan economy. However, F&B producers, in particular the SMEs, are experiencing increasing difficulties in maintaining their market shares due to the increasing costs of production, largely resulting from the extensive use of materials, energy and water. Reasons for the inefficient and unsustainable production practices include poor awareness of the issues on the part of SMEs and a lack of necessary expertise and resources to address them.

OBJECTIVES

The main objective of the project is to improve the performance of the Food and Beverage sector in Sri Lanka through promotion of cost effective production techniques and best practices of sustainable production among Small and Medium Enterprises. The activities:

- Integrate Environmental Sustainability with Economic Growth and Welfare by promoting best practices of SCP among SMEs;
- Assist SMEs to comply with International Food Safety Standards and Regulations;
- Improve the Enabling Conditions for successful implementation of Sustainable Policies in Sri Lanka;

- Conduct environmental assessments for collection of base line information for optimisation of resource utilisation and benchmarking;
- Networking among businesses through formation of Green Business Clubs.

OUTCOMES

The project aims to have an impact on the environment by producing more with less natural resources. This will reduce the consumption of energy, water and raw materials and also will result in reduction of solid waste, pollutants and gas emissions. The goals:

- To achieve success stories on SCP from 500 SMEs within 4 years
- To make 150 SMEs comply with international food safety standards
- To build local capacity for effective delivery of services on SCP
- To improve the enabling environment for effective enforcement of national policies and regulations including food safety standards.

”

SWITCH- Asia has largely assisted us to obtain the ISO 22000 Certification which we have now received. Our work has significantly changed. We are more effective and are wasting less.

S. Fernando
Proprietor
New Monis Bakery

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Industrial Technology Institute (ITI), Sri Lanka
IVAM UvA BV, the Netherlands



SCAN FOR MORE PROJECT
INFORMATION



REAP - Resource Efficiency in Agri-food Production and Processing

TAJIKISTAN, UZBEKISTAN • AGRI-FOOD

IMPLEMENTATION PERIOD: 2020-2023
BUDGET: EUR 2,958,871 (EU Contribution 89.84%)



CHALLENGE

While agriculture plays a major role in Uzbekistan and Tajikistan, food insecurity and a strong dependence on food imports increases vulnerability to climate change and geopolitics. In Uzbekistan, the share of small businesses (Micro-, Small and Medium-sized Enterprises - MSMEs) in gross agricultural production is 98.1%. The export of Uzbek agricultural products increases from year to year. As for processing and intermediate storage, Uzbekistan is in the top twenty countries in terms of cold storage. In Tajikistan more than 60% of the population lives in the rural areas. The country's natural resource base is weak and, due to remaining agricultural inefficiencies of the Soviet system, declined productivity poses severe challenges for its food security. Business is constrained and a key condition for improving economic growth and investment involves

improving the business environment in agri-food processing by introducing more efficient production techniques.

OBJECTIVES

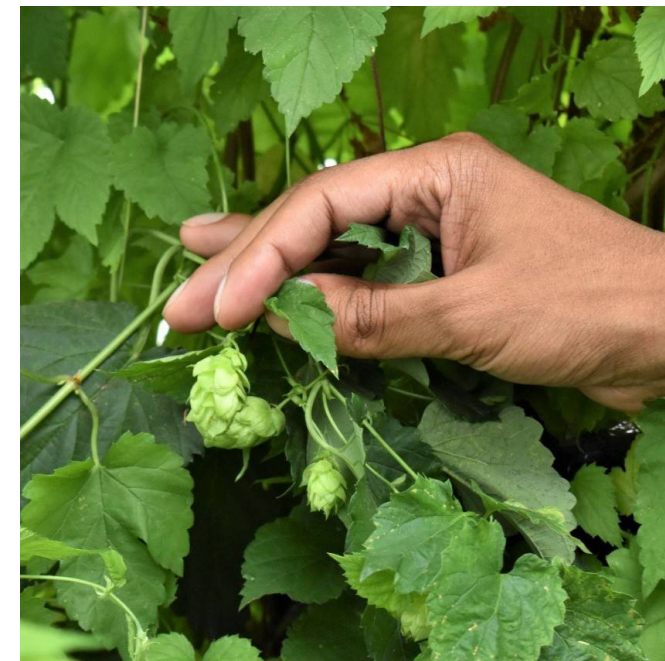
Promotes SCP practices in the agri-food production and processing industries along the entire supply chain. Develops business case for resource efficiency measures by MSMEs, while promoting eco-efficiency based on international standards and supporting companies in presenting bankable projects to financial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

The action seeks to improve sustainability in the agri-food production and processing industries in two ways:

- Targeting fast, cost-efficient SCP measures, showcasing the business case of such measures and creating a win-win mind-set in MSMEs;
- Building MSMEs capacity to deal innovatively with challenges in natural resource shortages and creating ecosystems for SCP and supply-chain integration.

WAY FORWARD

- Introduction and improvement of SCP measures and technologies in 400 MSMEs in agri-food production and processing;
- Increased efficiency by 20% on energy, 10% resources (including water) and 15% waste generation within participating companies;
- 10% of participating companies supported in applying for funding for bankable projects;
- Capacity building of 40 local experts on SCP practices for replication;
- Capacity building of 20 consultants and experts from financial institutions on suitable financial instruments for SCP solutions;
- Capacity building of 20 national or regional policy makers, advisors and government bodies and institutions on SCP policy mechanisms;
- Improved clusterization and ecosystem development for SCP involving all stakeholders.



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Chamber of Commerce and Industry of the Republic of Uzbekistan
National Association of Small and Medium Business of Tajikistan
STENUM Asia Sustainable Development Society (STENUM Asia)
The Energy and Resources Institute (TERI)



SCAN FOR MORE PROJECT INFORMATION





Promotion of sustainable energy practices in the garment sector in Cambodia

📍 CAMBODIA ● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 2020-2024
BUDGET: EUR 2,995,748 (EU Contribution: 86.94%)



CHALLENGE

According to the Ministry of Industry, Science, Technology and Innovation, the garment industry is the industrial sector's largest employer in the Kingdom of Cambodia employing 847,419 workers comprising 86% of the total industrial workforce in 2017. Exporting factories in turn account for more than 620,000 jobs (pre-COVID-19). The sector's expansion is reflected in its growing energy demand, with total final consumption increasing by about 11% between 2010 and 2015. According to the draft Energy Efficiency (EE) Policy, steep growth has led to the doubling of GHG emissions from energy consumption in the sector between 2002 and 2012. The predominant use of unsustainable, non-traceable cheap fuelwood in the factories of Cambodian garment suppliers contributes to the country's rapid forest depletion

and further exacerbates the sector's ecological footprint. Cambodia's garment Industry is losing its edge compared to other countries like Bangladesh, Myanmar, and Viet Nam, given its high energy costs as well as recent increase in the monthly minimum wage, lagging infrastructure, productivity, and logistics. The cost of electricity from the national grid in Cambodia is the highest in ASEAN. The average energy cost per ton of garments is US\$ 560. Energy costs constitute a significant share of the total production costs, contributing 16.7%, which is also higher than neighbouring countries.

OBJECTIVES

There is an opportunity for Cambodian factors to use sustainability as a competitive advantage. An increasing number of international brands, to which

Cambodian factories are supplying garment, have set corporate targets to lower the environmental footprint of their supply chains. Therefore, it will be important to reduce production costs in the garment industry and green its production processes to improve competitiveness and reduce negative environmental externalities. The Global Green Growth Institute (GGGI)'s economic modelling projects that a 20% increase in Energy Efficiency (EE) in the garment sector would lead to an increase of 31% in energy productivity by 2030 and US\$ 2 billion of avoided energy costs. The team proposes a holistic intervention to promote the adoption of sustainable energy practices in garment manufacturing in Cambodia by acting on multiple fronts: support to regulatory and enforcement measures, stimulating demand for sustainable energy technologies/services and increasing the supply of technologies/services and financial solutions for this purpose.

The objective of this project is to increase the competitiveness and decrease the environmental impact of the Cambodian garment industry through sustainable production. More specifically, the project aims to increase the investment in sustainable energy practices (such as efficient technologies, switch to renewable energy and good operations management) by garment factories in Cambodia.

WAY FORWARD

- Relevant government institutions initiate a series of regulatory measures to incentivize private investment in sustainable energy practices;
- Institutional arrangements and capacities are developed for adoption of enforcement measures and improve data availability supporting the sector's switch to sustainable energy practices;
- Awareness is raised and demand for appropriate technologies and advisory services for sustainable energy practices increases among value chain stakeholders;
- Garment factories have access to a range of appropriate technical and financial services including a guarantee fund to support their switch towards sustainable energy practices.



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Global Green Growth Institute (GGGI), Cambodia

PARTNERS

Garment Manufacturers Association in Cambodia (GMAC)
GERES - Acting for Climate Solidarity



SCAN FOR MORE PROJECT INFORMATION

Sustainable Production in the Printing and Dyeing Sector in China

CHINA

TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 2/2013-1/2017
BUDGET: EUR 1,499,000 (EU contribution 79.97%)



CHALLENGE

China is the largest textile producing and consuming nation in the world. In 2010, national textile production was valued at EUR 570 billion and accounted for 6.56% of national industrial production. The development of the textile industry is vital to China's economic development. Printing and dyeing (P&D) is a key process (and an important sector) in the textile industry in China. In 2010, Chinese companies printed and dyed 54.8 billion metres of fabric. Of that, over 50% was produced in Zhejiang province and about 33% of total national production was produced in Shaoxing County in north-eastern Zhejiang Province. Industry insiders know that printing and dyeing is by far the most polluting stage of production in the textile industry, due to high water and energy consumption, and high water

pollution or high chemical oxygen demand (COD) load due to the use of dyestuffs / chemicals.

OBJECTIVES

The project sought to reduce the negative environmental impacts of the textile printing and dyeing (P&D) industry in China, supporting Keqiao District in establishing a 'Green Printing and Dyeing Industrial Park', and promoting a level playing field through capacity building of small- and medium-sized enterprises (SMEs) on the sustainable production requirements of the European Union (EU) and other developed countries. The specific objectives included:

- Reducing negative environmental impacts of the textile printing and dyeing industry through promoting sustainable production among 350

SMEs in Zhejiang Province, with Keqiao District as a demonstration area;

- Supporting the creation of an enabling policy environment;
- Promoting the replication of project experience.

OUTCOMES

- Establishing Model Companies to show what the project can do for the companies in the P&D sector in China;
- Providing SME owners in P&D sector with CSR leadership training;
- Offering environmental management trainings to top management and/or chief engineers of SMEs;
- Encouraging SMEs to submit action plans to be followed up by experts;
- Compiling case studies and giving recognition for successful SMEs;
- Coordinating with other local governments in Zhejiang;
- Undertaking stakeholder consultation with fashion groups (brands companies), ESCOs and banks.

”

This project has strengthened our technology, security and information management capabilities. It has also helped us improve our sense of corporate social responsibility.

Fu Jianlin
Chairman of Shaoxing
Shengxin Printing and Dyeing Co., Ltd

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Commission, China

PARTNERS

Keqiao District Government, China

Stockholm International Water Institute, Sweden

Zhejiang Association of Printing and Dyeing Industry,
China

Zhejiang University, China



SCAN FOR MORE PROJECT
INFORMATION

Clean Batik Initiative

INDONESIA, MALAYSIA

TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 12/2009-12/2011
BUDGET: EUR 2,316,792 (EU contribution 80%)



CHALLENGE

Batik small and medium-sized enterprises (SMEs) operate with excessive use of water, wax, chemical dyes and bleaching agents that are harmful to the workers and the environment. Carcinogenic wastes generated from batik production are generally left untreated and often pollute rivers and waterways which is detrimental to the health and livelihoods of thousands of local residents. Low health and safety awareness also leave the workers exposed to hazardous substances on a daily basis. There is no demand-led stimulus for the batik SMEs to switch to a cleaner method of production due to low environmental awareness of the batik consumers.

OBJECTIVES

The project aims to improve the environmental indicators of the batik industry in Indonesia and Malaysia and to create environmentally conscious consumers in order to drive the demand of ecofriendly products from batik SMEs that will, in turn, provide incentives for cleaner production. It aims to do so through:

- Increasing practices and use of environmentally-friendly technologies by batik SMEs by promoting sustainable alternatives in production processes that use fewer materials and generate less pollution per unit of goods produced;
- Promoting trade in clean batik and switching consumption behaviour of consumers or segmented consumer groups in favour of products that are less environmentally damaging;

- Contributing to the development of an enabling policy environment to create a setting that stimulates batik SMEs and batik consumers to change their behaviour.

OUTCOMES

- Focus on capacity building;
- Introduce sustainable practices and environmentally friendly technologies;
- Build market for environmentally friendly products;
- Set up consultant networks;
- Promote showcases;
- Save resources and greater productivity;
- Reducing pollutants through increased use of environmentally friendly dyes;
- Raising environmental consciousness.



”

My SME has a high production volume so I use plenty of firewood for the wax-removal process. This project introduced a blower system that was supposed to improve the efficiency of the burning process. At first, I was skeptical but having seen the results, I am truly amazed how such a simple solution works wonders. I have effectively reduced the use of firewood by half for every process.

H. Khusaeni

Batik SME from Pasirsari Village, Pekalongan

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LEAD PARTNER

Malaysian-German Chamber of Commerce (MGCC)

PARTNERS

European Business Chamber of Commerce in Indonesia (ECONID)
IHK-Akademie München



SCAN FOR MORE PROJECT INFORMATION

Handwoven Eco-Textiles

INDONESIA, PHILIPPINES

TEXTILES AND
LEATHER

IMPLEMENTATION PERIOD: 2/2013-2/2017
BUDGET: EUR 1,999,972.60 (EU contribution 80%)



CHALLENGE

Traditional hand-woven textiles are produced in one third of provinces in the Philippines and throughout Indonesia. However, poor product standardisation and limited technical capacity make it difficult for entrepreneurs to meet buyer demands for quantity, quality and deadlines. Limited access to supplies of quality natural dyes and eco-fibres also limit production. Moreover, low awareness of eco-labels or standards hinder the producers from realising a premium of wider markets.

OBJECTIVES

The project promotes sustainable consumption and production (SCP) of handwoven eco-textiles in Indonesia and the Philippines by scaling-up successful SCP practices throughout the market chain, and supporting the development of an enabling policy environment.

OUTCOMES

- Providing technical assistance to weavers, natural dye and fibre producers, and entrepreneurial groups and cooperatives, to support adoption of product and quality assurance standards;
- Providing technical assistance for hand-woven textile entrepreneurs on production techniques and ecodesigning;
- Conducting marketing training to improve awareness of marketing opportunities and requirements;
- Supporting joint ventures between producer groups to establish and manage provincial shops and distribution centres;
- Promoting business networking and sales through linkage of producers to wholesalers and retailers;
- Linking producer groups and cooperatives to finance institutions.



”

By documenting and teaching traditional methods of weaving and natural dye production, we also improve the environmental sustainability of textile production while helping to preserve community knowledge of these important cultural traditions.

Miranda
Project Manager
Hivos Southeast Asia

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PARTNERS

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The Indonesian Woven Textiles Association (CTI),
Indonesia



SCAN FOR MORE PROJECT
INFORMATION

STeP EcoLab - Sustainable textiles production and ecolabelling

📍 MONGOLIA ● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 2018-2022
BUDGET: EUR 1,867,329.76 (EU contribution 80%)



CHALLENGE

Based on traditional pastoralist livelihoods, the cashmere and wool sector is a key driver of the Mongolian economy and second only to the extractive industry. It is however facing new challenges due to increased competition from foreign processors (sourcing and production). Hence, the need to establish a more quality-driven production system as well as the emergence of a niche market amongst end customers. The sector has recently been the focus of the Government of Mongolia and its Sustainable Development Vision in order to adopt more environmentally friendly production methods, thereby, lowering GHG and overall pollutant emissions while increasing the share of nationally processed leather, wool and cashmere up to 80% by 2030. The 2018 National Cashmere Program has the objective to introduce

eco-friendly technology and develop niche competitive products to Mongolia. In parallel, various agencies have been working consistently with the upstream value chain by looking at the existing environmental impacts and pasture degradation issues which are the key challenges faced by herders' communities in rural Mongolia. Within this conundrum, virtuous practices (amongst herders and within the banking sector thanks to a progressive legislation) have risen, encouraging actors to adopt more sustainable and quality driven practices.

OBJECTIVES

The STeP EcoLab project aims at supporting the supply chain and the textile industry in adopting more sustainable sourcing and production practices and simultaneously improve the

branding for sustainable products, optimise cost-saving measures and reach out to climate finance and diversify the portfolio of customers.

WAY FORWARD

- Promote best practices on raw material sustainability, quality improvement and control and sustainable certification.
- Creation of a multi-stakeholder platform to foster and promote the convergence and extension of existing animal fibers eco-labelling schemes. Consolidation of sustainable raw material sourcing options for Mongolian textile processors.
- Assessment of textile processors related to their social and environmental impacts, including joint-identification of feasible improvements. Creation of a platform to co-develop a sectorial roadmap and a Voluntary Code of Practice (VCP), embodying the commitments of the processors to switch to more sustainable production practices. In parallel, analysis of the existing regulation in order to build the case for regulatory adjustments.
- With the Mongolian Bankers' Association, sector specific Environmental and Social (E&S) risk assessment, development of dedicated tools and guidelines. Demand study for sector specific green finance products. Identification and development of a pipeline of projects for international and domestic green finance operators. Jointly, capacity building of MWCA members to access green finance.
- Academic level support to MUST in developing courses on E&S management tailored for textile engineers, follow-up with Training of Trainers for MUST professors and integration of the content in the official curriculum.
- With relevant expert support, study on expectations of Mongolian and European consumers. Sustainable products marketing and communication support for MWCA and its members in Mongolia. Organization and participation in trade fairs (Europe and Mongolia) in order to connect processors and suppliers to the market for sustainable products.



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PARTNERS

Collaborating Centre on Sustainable Consumption and Production GGBH
Environment and Security Center of Mongolia
Mongolian Banking Association
Mongolian Wool and Cashmere Association
National Association of Pasture User Groups



SCAN FOR MORE PROJECT
INFORMATION

SMART Myanmar I - SMEs for environmental accountability, responsibility and transparency

MYANMAR ● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 1/2013-1/2015
BUDGET: EUR 1,996,942.07 (EU contribution 90%)



CHALLENGE

Since the US lifted its import ban on products from Myanmar in November 2012, followed by the European Union in April 2013, the country is re-entering western markets. In July 2013, Myanmar became part of the EU's Generalised Scheme of Preferences (GSP), further fostering growth with the abolishment of trade barriers to the European market. The garment industry has huge potential to contribute to national economic growth, both as a foreign exchange earner and a massive job provider. Despite some progress, Myanmar's garment industry still lacks awareness on the principles of sustainable consumption and production (SCP) and social responsibility. This prevents small and medium-sized enterprises (SMEs) in Myanmar's garment sector from increasing their access to international markets.

OBJECTIVES

The overall objective of the project was to increase the competitiveness of SMEs in the garment sector of Myanmar and to set preconditions for replication towards other sectors. SMART Myanmar promoted the improvement of sustainably manufactured garments made in Myanmar, thus increasing market access to Europe for local factories. Specific objectives included:

- Relevant Business Support Organisations being capacitated to promote and channel SCP effectively, providing SCP services and green financing instruments;
- An effective marketing strategy enhancing sales of sustainably produced garments in Myanmar;

- The production of garments made in Myanmar becoming cleaner and more efficient;
- Myanmar Garment Manufacturers' Association was supported to develop a Code of Conduct, which was implemented by garment factories..

OUTCOMES

- Built the capacities of BMO which included developing strategy with MGMA, joint identification of areas for improvement, and the preparation of action plans in the identified areas;
- Organised workshops to create new SCP services (included matchmaking service offers between European buyers and Myanmar suppliers) for MGMA members;
- Improved awareness of SCP in the industry and banks. Participants from 30 banks were briefed on green financing and SCP. Garment entrepreneurs were shown the benefits from adopting quantitative SCP measures, through case studies.
- Facilitated more than 300 business linkages and new orders were received by the selected SMEs;
- Supported Myanmar garment factories to move from the cut-make-pack (CMP) business model to a full scale business (FOB) offering clients a larger range of services, to attract more European buyers;
- Trained 14 young engineers to further offer SCP consultancy 10 SCP consultants were employed by MGMA and given a hands-on training by international garment experts.



SCAN FOR MORE PROJECT INFORMATION

”

Before participating in the project, a European client cancelled an order because our products did not meet the international standards. Now we are receiving orders from Japan, Germany and the Netherlands.

Thet Su Zin Win
Director of Maple factory



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PARTNERS

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Confederation of the German Textile and Fashion Industry, Germany

Myanmar Garment Manufacturers Association (MGMA)
Sheffield Chamber of Commerce and Industry LBG, UK

SMART Myanmar II

MYANMAR ● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 1/2016-12/2019
BUDGET: EUR 2,777,629.59 (EU contribution 90%)



CHALLENGE

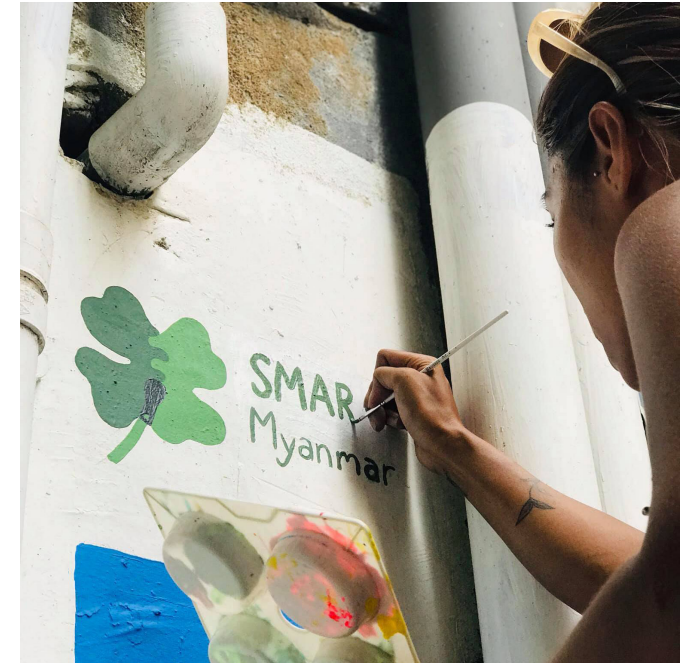
Despite some progress, Myanmar's garment industry still lacks awareness in the principles of sustainable consumption and production (SCP) and social responsibility. Garment companies need to comply with environmental and social standards to regain access to international markets. Thus, the social and environmental conditions, especially for workers in the sector, will need to be reviewed.

OBJECTIVES

The project seeks to contribute to a switch to sustainable garment consumption patterns and promote sustainable growth of Myanmar's garment sector. Specifically the project aims at institutionalising, up-scaling and replicating successful SCP practices in the garment sector developed and implemented during the SMART Myanmar I project.

OUTCOMES

- Training SCP consultants on sustainable production and compliance with international standards;
- Carrying out social compliance academies to improve working conditions in garment factories;
- Conducting workshops with banks on green finance;
- Launching a branding and communication initiative "Made in Myanmar" to inform European and Myanmar consumers;
- Building the capacity of female workers to claim their rights;
- Identifying good practice companies and honouring the best ones;
- Initiating public private dialogues on sustainable public procurement;
- Advocating SCP-related issues with government institutions.



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Foreign Trade Association of German Retail Trade (AVE)
Myanmar Garment Manufacturers Association (MGMA)
Stichting Made-by Label (Made-by)



SCAN FOR MORE PROJECT
INFORMATION



ECOLEBAN - Environmental management systems and eco-labelling in SMEs of the leather sector in Bangladesh

📍 BANGLADESH ● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 3/2014-3/2018
BUDGET: EUR 2,089,982 (EU contribution: 90%)



CHALLENGE

The leather industry is a fast growing and vital component of Bangladesh economy. However, the leather sector is very polluting and causes harmful impacts both on the environment and human health. A deep analysis to identify the needs and constraints of the sector shows that the core of the problem is that the leather industry in the country is dominated by SMEs with critical lack of expertise and capacity to respond to environmental problems.

OBJECTIVES

The project promotes resource efficiency and sustainability of the leather sector in Bangladesh throughout the whole value chain of the leather related products such as footwear and other leather goods.

OUTCOMES

- Implementing Life Cycle Assessment (LCA) to identify the key hotspots along the leather goods value chain and a Best SCP Practices Programme in 20 leather sector SMEs;
- Certification of 20 leather sector SMEs in Environmental Management Systems (ISO 14001);
- Creating a panel of 100 national experts in SCP practices and certification models to assure the continuation;
- Designing and developing Eco-label Scheme for leather footwear sector;
- Creating market demand of eco-labelled leather footwear among consumers and intermediate agents;
- Training of 50 policy-makers in sustainability practices;
- Facilitation of the access to “Green financing” for SMEs by engaging financial institutions;
- Disseminating of the outcomes through the elaboration and implementation of a “Communication and Visibility Plan”.



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Bangladesh Tanners Association (BTA)

Leathergoods And Footwear Manufacturers & Exporters Association of Bangladesh (LFMEAB)



SCAN FOR MORE PROJECT INFORMATION

Re-Tie Bangladesh - Reduction of environmental threats and increase of exportability of Bangladeshi leather products

📍 BANGLADESH ● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 2/2009-11/2012
BUDGET: EUR 2,071,001 (EU contribution: 90%)



CHALLENGE

Tanneries in Bangladesh trigger three categories of waste: wastewater, solid waste and gas emissions. Also the use of resources is way above acceptable. Water consumption is unnecessarily high due to the free access and limited resource control. Chemicals, energy and other inputs are also being consumed at too high a rate, due to poor control mechanism, and lack of awareness. The leather industry in Bangladesh is situated in the midst of a densely populated residential area where people are living unaware that it is one of the worst polluted areas in the world. The incentive for small and medium-sized enterprises (SMEs) in this area to clean up their production practices lies in the improved exportability and

competitiveness of their products that results when they reduce the inputs.

OBJECTIVES

The project aims to promote more economically and ecologically sound practices among SMEs in the leather industry and to increase the use of more sustainable technologies. As such, it addresses employment and income-opportunities through:

- More efficient use of resources, thus reducing waste and emissions;
- Better exportability by adhering to international standards such as occupational health and safety (OH&S), Corporate Social Responsibility (CSR), etc.;

- A policy framework supporting sustainable consumption and production (SCP);
- Strengthened institutional structures and outreach of SCP to SMEs.

OUTCOMES

- 15 national experts on cleaner production (areas: water, energy, chemicals and Occupational Health and Safety / OH&S) trained;
- Application of cleaner production practises facilitated by the trained local experts and supervised by international experts like: hair-saving unhairing, solar water heating, full-scale chromemangement, strict water management systems, float recycling, segregation of streams, (especially chrome bearing), segregation of solid waste, avoidance and monitoring of banned/ hazardous substances, desalting of wet salted hides and skins, nonammonium salt deliming, low-energy drying, waterbased finishing etc. supported;
- Business Membership Organisations (BMOs) in the leather sector are capable to promote SCP matters at policy and membership level;
- Technical assistance provided to influence the CP relevant physical infrastructure of the new industrial site for the leather industry in Savar. Export promotion through business match making, participation at trade fairs, development of Export Promotion Guide and CSR Guide.



SCAN FOR MORE PROJECT
INFORMATION

”

The government is establishing a new tannery estate outside of Dhaka. Cleaner production practices implemented through this project will definitely be in our construction plans before moving to the new estate.

Shah Amran Patwary
M/S. Lien Enterprise,
Hazaribagh, Dhaka



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Bangladesh Tanners Association (BTA)

Berufliche Fortbildungszentren der Bayerischen Wirtschaft (bfz), Germany

Dhaka Chamber of Commerce and Industry (DCCI)

United Nations Industrial Development Organization (UNIDO), Austria

ECO-JUTE - An eco-friendly alternative for a sustainable future

📍 BANGLADESH, INDIA

● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 3/2010-2/2014
BUDGET: EUR 920,569 (EU contribution: 80%)



CHALLENGE

Jute is vital to the economies of India and Bangladesh. It is biodegradable, absorbs CO₂ and releases O₂ and N₂ in the atmosphere. However, during jute cultivation, jute plants are soaked in water for several days (a process called retting) in order to separate the fibres. This retting process destroys the quality of water and affects fish cultivation. Additionally, during production of Jute Diversified Products (JDPs), producers use dyes and chemicals which can cause negative environmental impacts. Addressing these challenges and encouraging production and consumption of eco-friendly JDPs helps to develop the jute industry in Bangladesh and India, to alleviate poverty and to ensure environmental sustainability.

OBJECTIVES

The project aimed at reducing poverty and promoting economic prosperity by encouraging a switch to more sustainable production and consumption of eco-friendly Jute Diversified Products (JDPs) in Bangladesh and West Bengal, India. Specific objectives included:

- To support 500 JDP-producing SMEs in Bangladesh and West Bengal, India;
- To promote eco-friendly production processes (reducing water and energy consumption, chemical residues and greenhouse gases emissions);
- To increase the use of environmentally-friendly dyes;

- To increase the demand for and sales of eco-friendly JDPs from Bangladesh and India (in Bangladesh, India and Europe);
- To increase sales by the target SMEs by 20%;
- To receive orders from at least 50 wholesalers for eco-friendly JDPs.

OUTCOMES

- Addressing supply and demand of JDPs
- Advocating Policy Changes
- Establishing service capacity
- Enabling More Business Linkages
- Setting up a JDP SME Association
- Policy Uptake



CONTACT

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Traidcraft Exchange, UK

PARTNERS

Margdarshak Development Services
Training, Assistance and Rural Advancement Non-Government Organization (TARANGO)



SCAN FOR MORE PROJECT INFORMATION



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



INDIA

● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 2020-2023

BUDGET: EUR 3,124,992 (EU contribution: 80%)



CHALLENGE

Kolkata Leather Cluster is one of the largest leather clusters of India, housing around 350 tanneries and more than 4,000 leather goods manufacturing units (mostly SMEs). The cluster produces leather goods and accessories, such as shoes, gloves, wallets and belts for the domestic and EU markets, providing direct employment to around 60,000 workers. The West Bengal government has ambitious plans to expand the Kolkata leather complex and facilitate the MSME business growth to further explore the European market. Despite the sector's huge growth potential, it is plagued with several environmental and public health issues due to lack of clean and green technologies. In addition to effluent

water, the tanning industry, which falls in the red category (= critically polluting) of the Central Pollution Control Board, Government of India also produces a lot of high-polluting solid waste such as fleshings, off-cuts and sludge, which currently gets dumped at municipal landfill garbage sites, thus provoking a public outcry. The health and safety conditions of the workers in the tanneries are also not optimal, due to lack of awareness. Skin and respiratory problems are therefore common among workers in the tanning industry. Keeping these challenges at the forefront, the project aims to reduce the environmental footprint of the Bantala tanneries and improve the health and safety conditions for the workers and the public health.

OBJECTIVES

Improved waste management in the Kolkata tanning sector requires a two-pronged approach: (a) reduction of the effluent and solid waste levels to reduce the environmental burden, waste management menace and improve workers' conditions and (b) recycling or re-use of waste into useful by-products to generate additional livelihood opportunities. This implies the adoption by tanneries of new green technologies and tanning processes and improved waste management practices. Thus, the key focus areas of the project are:

- Reduction in effluent load by adoption of green tanning processes and technologies by the tanneries in the Bantala Leather Complex;
- Increased use of solid waste through recycling solutions;
- Establishment of an effective public-private platform for improved waste management at cluster level;
- Adoption of waste management and health and safety (OHS) framework.

The project will enable the tanneries to meet the increasingly high international quality and environmental standards and thus enhance the Indian leather industry's competitiveness as well as improving working conditions and health of surrounding communities. More specifically it will:

- Introduce and promote sustainable production practices in the highly polluting tanning sector through technology transfer, provide capacity building of the tannery management and workers on better tanning practices and facilitating access to technical and financial services;
- Create an enabling environment for efficient and effective public-private collaboration by establishing a round table/ platform comprising representatives from the West Bengal Department of Micro & Small Scale Enterprises, Calcutta Leather Cluster Tanneries Association, financial institutions, Leather Manufacturing Organisations, among others;
- The practices established are promoted to become more accessible for SMEs also in other major Indian leather clusters in Tamil Nadu, Uttar Pradesh and Punjab.

WAY FORWARD

- More sustainable production practices, improved technical capacities and access to finance;
- Enhanced competitiveness through compliance with international market standards and reduction of production costs;
- Better effluent and solid waste management leading to opportunities for further growth;
- For employees: Reduced health and safety hazards;
- Reduced public health risks and environmental hazards.

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PARTNERS

CLCTA

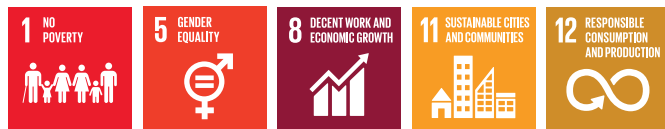
Dugros

PISIE

Stahl



SCAN FOR MORE PROJECT INFORMATION



Going Green - Promoting economic competitiveness of the Indian textile industry and artisans' well-being

INDIA

TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 1/2014-12/2017
BUDGET: EUR 1,197,779 (EU contribution: 80%)



CHALLENGE

The textile sector is critical to the Indian economy – it contributes 14% to industrial production, 4% to GDP, and 17% to export earnings. However, this sector creates a high negative environmental impact such as degradation and depletion of natural resources; use of toxic chemicals/processes leading to pollution and health problems. There is also a lack of support, resources and incentives in the textile industry especially for the small and medium sized enterprises (SMEs) to implement eco-friendly solutions to address these issues.

OBJECTIVES

The project promotes economic competitiveness of the Indian textile industry and the well-being of textile artisans. The project aims to build sustainable businesses of textile artisans and improves their working conditions through efficient ecofriendly processes, access to resources and increased demand for 'green' products.

OUTCOMES

- Organising 250 SMEs and 12,500 artisans producing textile products into at least 150 artisan-based collectives (30% women members) and 6 federations (one per district);
- Providing trainings for SMEs and advocating policy changes to encourage the uptake of eco-friendly practices in textile clusters;
- Creating collectives to empower artisans and SMEs;
- Identifying potential as well as existing schemes for finance and services to build efficient eco-friendly businesses;
- Creating consumer awareness and demand amongst buyers and consumers in India and abroad, building on the momentum already created by the previous SWITCH-ASIA project, SUSTEX;
- Promoting sustainable products certified under the 'Craftmark Green'.



”

This project has opened up new opportunities for tribal and rural women of Salumber in Udaipur by creating new businesses out of textile waste. We have created 700 new jobs and are supported by government officials and large businesses to build five new training centres for women in this area.

Shekhar Kumar
Director of Projects
Vishvas Sansthan, Udaipur



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PARTNERS

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SCAN FOR MORE PROJECT
INFORMATION

SUSTEX - Sustainable Textiles for Sustainable Development in India

INDIA

TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 1/2009-7/2013
BUDGET: EUR 2,091,181 (EU contribution: 80%)



CHALLENGE

The textile industry has a very special place in the Indian economy, as it is one of the largest and the oldest manufacturing sectors in the country. It employs about 35 million people second only to agriculture and another fact that it is one of the most chemically intensive industries produces the most hazardous waste and proper disposal facilities are not available. On an average, it takes about 1893 liters of water to produce just enough fabric to cover one sofa. The growth of small and medium enterprises (SMEs) has led to altered production processes resulting in a range of environment and health hazards.

OBJECTIVES

The project sought to promote the production and consumption of eco-friendly textiles and improve employment and working conditions of artisans.

OUTCOMES

- The Common Effluent Treatment Plant (CETP) has been set up at the JITPPL (Jaipur Integrated Texcraft Park Pvt. Ltd.);
- The state-of-art infrastructure at JITPPL includes STP (Sewage Treatment Plant), rain water harvesting and solar electricity provisions;
- A toolkit on sustainable textile production has been prepared and is being disseminated. A database of sustainable raw materials has been developed. This includes a list of suppliers of organic cotton and natural dyes;
- Skills development training of 1000 artisans has been completed in block printing, sewing machine operator and tie and dye skills. Of these 807 artisans are women;
- Three Effluent Treatment Plants (ETPs) as models demonstrating low cost ETP technology have been set up at Bhuj – Gujarat; Lunkaransar – Bikaner and Balotra in Barmer, Rajasthan;
- Policy briefs on environment, occupational health and safety (OHS) issues and the Scheme for Integrated Textiles parks (SITP) have been developed and submitted to the relevant governmental departments;
- The project's OHS recommendations for artisans have been accepted by the Planning Commission and will be considered in the Government's 12th five year plan.



”

This project became a role model for similar craft-based industries in India. Adopting cleaner production practices, gave me a new direction and energy when contributing to this industry.

Vikram Joshi

Textile technologist and SME owner



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SCAN FOR MORE PROJECT
INFORMATION

Sustainable Carpet and Pashmina

NEPAL

TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 1/2014-7/2017
BUDGET: EUR 1,058,939 (EU contribution: 90%)



CHALLENGE

Carpet and Pashmina production are Nepal's second and third largest source of export earnings, and provide the largest source of industrial employment. These industries, however, are constrained by outdated production methods that are inefficient and highly polluting, leading to reduced competitiveness and environmental impacts.

OBJECTIVES

The project aims to increase resource efficiency, profitability, and sustainable growth by mobilising private sector and relevant public sector authorities to reduce fuel and water use, and water pollution in the Nepalese carpet and pashmina industries. The project promotes sustainable production and SME profitability in the two of Nepal's highest earning yet most polluting industries.

OUTCOMES

- Conducting cleaner production (CP) awareness campaigns and engaging the carpet and pashmina industry associations;
- Conducting training/workshops for the design, implementation and maintenance of CP techniques;
- Developing model units for dyeing and washing sub-sectors and promoting cross-visits;
- Providing financial literacy and business plan training for SMEs and access to financing;
- Capacitating CP service providers and carpet and pashmina industry associations;
- Supporting the Ministry of Industry and the Ministry of Science Technology and Environment in developing enforcement mechanisms for existing regulations.

”

When buyers from European countries visited our industry, they were impressed with how we applied and improved occupational health and safety measures. The training also enabled us to save energy, chemicals and dyes.

Ganesh Shrestha
Proprietor
Ashirbad Pashmina Industry

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PARTNERS

Society for Environmental and Economic Development Nepal (SEED Nepal)



SCAN FOR MORE PROJECT
INFORMATION

SCI-PAK - Modernising manufacturing industries in Pakistan

PAKISTAN

TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 3/2009-2/2013
BUDGET: EUR 1,408,592 (EU contribution: 80%)



CHALLENGE

In Pakistan, several cleaner production initiatives have been undertaken in the past decade (assessment of needs, energy audits, technical assistance to adopt energy efficiency and waste water recycling techniques, raising awareness on cleaner production packages). Despite these initiatives, the target sectors leather and textile lack know-how and capacity to apply sustainable production technologies and be aware of environmental impacts and associated potential financial benefits.

OBJECTIVES

This project sought to implement a range of energy and resource efficiency initiatives in the textile and tannery sectors in Pakistan, with the potential to adapt these initiatives to other manufacturing industries in the long-term (e.g. sugar, pulp and paper, steel rolling etc.).

OUTCOMES

- Defined knowledge has been given on the manufacturing production chain and technological capacities;
- Increased capacity of IEMs to improve the energy and resource efficiency of production and implement SP practices in the targeted industries;
- Local educational institutes are now fostering academic-industrial partnerships to educate students in E&RE technologies;
- Series of pilot E&RE implementations are now available for replication by other SMEs, showcasing a complete model for SP in the manufacturing processes;
- Trained IEMs on SP technology, implementation and business strategies, supported by knowledge acquired from the pilot initiatives;
- Sustainable production network has been implemented and linkages between IEMs and EU environmental standard organisations were established;
- An established and capable manufacturing sector focused on enabling the proliferation of E&RE technologies;
- Strengthened and innovative policy framework for implementing and inciting SP practices in the manufacturing industries;
- Increased awareness and access to know-how and training in SP technologies at the local and regional level.

”

By adopting resource efficiency measures in our tannery processes, we have not only gained financial benefits in terms of resource conservation (water, chrome and other chemicals); we also experienced an improvement in our work which led to higher quality of our products, healthier occupational environment and reduction in wastewater pollution load at source.

Ashfaq
MH Tannery

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Cleaner Production Institute (CPI), Pakistan
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Production GGMBH
Iqbal Hamid Trust (IHT)



SCAN FOR MORE PROJECT
INFORMATION

SPRING - Sustainable cotton production in Pakistan's cotton ginning SMEs

PAKISTAN

TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 1/2012-12/2015
BUDGET: EUR 1,979,286 (EU contribution: 80%)



CHALLENGE

The cotton and textiles sector accounts for 40% of Pakistan's total labour force and nearly 60% of exports. Cotton is a natural and breathable fibre; it is also renewable, recyclable and biodegradable. Consumers, brands and retailers are becoming increasingly conscious about issues such as chemical and water use, child labour, gender inequality, low wages and other risks linked to the cotton sourcing. Besides exploring choices for sourcing the cotton sustainably, responsible businesses are looking to improve cotton-sourcing procedures through more traceability, control and transparency in their cotton supply chain. The cotton ginning sector in Pakistan is characterised by direct environmental impacts resulting mainly from high-energy consumption and inefficient processes. Moreover, poor housekeeping and

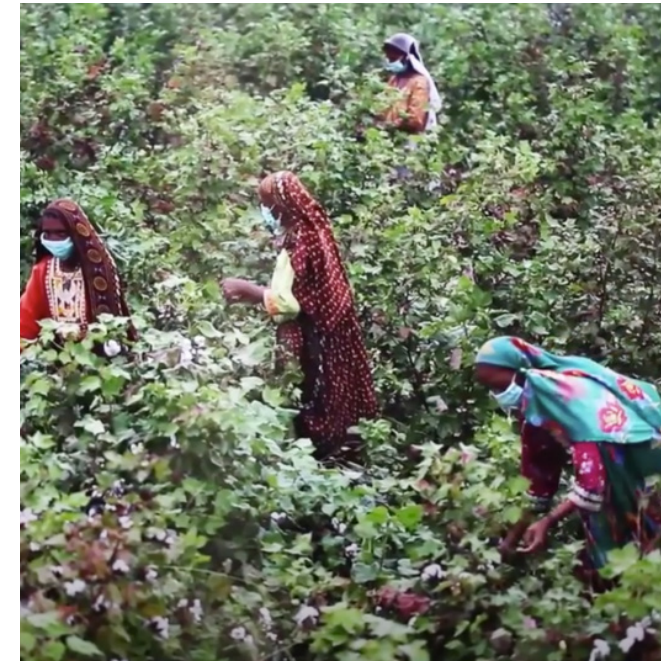
working conditions pose direct threats to health and safety of the workers.

OBJECTIVES

The project aimed to have at least 500 cotton gin SMEs in Pakistan recognise the benefits of sustainable cotton production and consumption, and 40% of these SMEs commit to more sustainable production practices, in line with the agreed better ginning practice guidelines, and supported by the procurement practices of European retailers.

OUTCOMES

- Improving the Supply of 'Better Cotton'
- Developing Better Ginning Practice (BGP) Guideline
- Capacity Building
- Instilling Change in Retailers' Purchasing Practices
- Conducting In-depth Dissemination



”

The ginners frequently disclosed to us that prior to being part of the SWITCH-Asia SPRING project, they used to run their ginning facilities as a trading place of processed cotton and they never considered ginning business as an industry, let alone considering energy conservation, mechanical efficiency or productivity. SPRING highlighted not only the economic benefits of improving efficiencies, but also raised consciousness on improving working conditions and the environment in factories. We not only changed how SMEs work, but also the mindset of the industry, which in my opinion is a far bigger success.

Asad Imran
Senior Manager,
SPRING Project

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WWF-UK



SCAN FOR MORE PROJECT
INFORMATION

RUTSIS - Reviving Uzbekistan’s and Tajikistan’s Sustainable Ikat and Silk

TAJIKISTAN, UZBEKISTAN

● TEXTILES AND LEATHER

IMPLEMENTATION PERIOD: 2020-2023

BUDGET: EUR 2,012,796.40 (EU contribution: 80%)



CHALLENGE

Tajikistan and Uzbekistan are linked by a long and common history, culture and religion. Since ancient times, the silk production and processing traditions of Uzbekistan and Tajikistan have been shaping the Central Asian region making the two countries an integral part of the “Great Silk Road”. Silk has remained the trademark of many contemporary home-grown designers and fashion brands in Uzbekistan, who use Central Asian Ikat, a unique textile, which is patterned by dyeing the threads before weaving. Having been separated from Western markets for over 200 years, high-end fashion houses start showing increasing interest in the unique, high quality designs and color combinations, of the Ikat from Central Asia. While Uzbekistan inherited few silk production sites, the Tajik sericulture has

almost vanished in view of the turmoil following dissolution of the USSR and the long-lasting civil war. Due to the continuous emigration and destruction of traditional textile production, much of the knowledge about traditional sericulture and ikat textiles was largely lost. In addition, industrial textile production processes, especially dyeing methods, have replaced traditional textile production in Tajikistan and Uzbekistan contributing to pollution of the environment and water sources of communities.

OBJECTIVES

- Promotion of sustainable growth along the Great Silk Road in Central Asia;
- Contributing to the revival and upgrade of local silk and Ikat value chains;

- Integration of sustainable production approaches in an ethically and environmentally friendly way;
- Strengthening cross-cultural dialogue between Uzbek and Tajik societies;
- Creation of new education and employment opportunities, safeguarding ancient silk and Ikat production techniques, and developing innovative sustainable design;
- Enhancing recognition of Central Asian sustainable silk and ikat products in the international market.

WAY FORWARD

- Sustainable production issues and improvement potentials along the Ikat value chain are identified, a regional strategy is developed;
- Local and cross-regional relationships for building new supply chains are established;
- Supportive training and advisory capacities of local educational/vocational institutions are enhanced: Tailored training modules launched;
- Ikat products aligned with sustainable performance criteria;
- Policy dialogue is initiated; product labelling is introduced;
- Awareness among local and international buyers of Ikat on sustainable consumption and production of Uzbek/Tajik silk/Ikat products is increased.



SCAN FOR MORE PROJECT INFORMATION



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Burg Giebichenstein University of Art and Design Halle, Germany

SUSTAINABLE HOUSING AND BUILDING





Eco-friendly Bamboo Production



CHINA

● SUSTAINABLE HOUSING
AND BUILDING

IMPLEMENTATION PERIOD: 1/2010-1/2014
BUDGET: EUR 2,467,869 (EU contribution 80%)



CHALLENGE

In May 2008, a devastating earthquake hit Sichuan province. Bamboo resources have the potential to play a major role in the development of post-disaster reconstruction, and pro-poor, environmentally sustainable industries. However, the bamboo supply chain still includes challenges such as poor links between farmers, semi-processors, and end-product SMEs. Prior to the project, most farmers and producers lacked knowledge on cleaner production practices and did not possess sufficient market and management capacity.

OBJECTIVES

The project contributed to eco-friendly pro-poor economic growth in the post-disaster area of Sichuan Province, especially in earthquake-affected areas, and increased livelihood

opportunities through the sustainable production of bamboo building materials for reconstruction. The specific objectives included:

- To set up an integrated government monitoring system for bamboo SMEs to enforce environmental standards;
- To build capacities of bamboo SMEs in sustainable bamboo production;
- To improve bamboo supply chain management system and enhance resource efficiency;
- To improve policy and investment environment for the bamboo sector in Sichuan;
- To develop a Provincial Bamboo Building Code (policy recommendation);
- To increase consumers' awareness and market demand for bamboo building materials.

OUTCOMES

- Integrated government monitoring system for SMEs to enforce provincial and national environmental standards set up;
- Sustainable bamboo production ensured through improved resource efficiency and management by target bamboo SMEs;
- Policy and investment frameworks improved for sustainable pro-poor growth of the Sichuan bamboo SME sector;
- Public awareness and demand for bamboo products from industry, retailers, and general public in Sichuan increased.



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Benelux Chamber of Commerce (BenCham), China
EU Project Innovation Centre (EUPIC), China
Sichuan Provincial Forestry Department (SPFD), China



SCAN FOR MORE PROJECT
INFORMATION



Low Energy Housing

CHINA

SUSTAINABLE HOUSING
AND BUILDING

IMPLEMENTATION PERIOD: 2/2012-1/2015
BUDGET: EUR 1,488,255 (EU contribution 80%)



CHALLENGE

Conventional buildings in China consume large amounts of energy due to a lack of energy efficiency measures. With two billion square metres of mostly minimally efficient floor area added to the building stock every year, buildings require vastly more energy than is necessary. This results in more fuel burned, rising local pollution and GHG emissions, higher utility bills for consumers and reduced national energy security for government. The earlier this issue is addressed the better. Buildings have a lifespan of several decades and each low-efficiency building constructed poses a long-term issue. Government, investors, suppliers and consumers have to act soon to prevent lock-in to excessive energy consumption by buildings for many decades to come.

OBJECTIVES

The *Low Energy Housing (LEH)* project aimed at increasing the sustainable use of resources in the building sector, especially energy efficiency, while improving the quality of life in the target areas and contributing to the mitigation of climate change. This was achieved by using on-going large-scale construction projects in two target areas with different development histories, Shenzhen and Sichuan province, as case studies for best practice.

OUTCOMES

- Contributed to voluntary LEH cooperation agreements, signed by government and developers, and tied to financial subsidies through Ministry of Housing and Urban-Rural Development (MoHURD);
- Memoranda of understanding (MoU) were signed with 43 real-estate developers providing the project consortium with access to data and creating another communications channel, also providing developers with access to Chinese government subsidies;
- Prepared a sector report, outlining not just good practice examples but also highlighting how the Chinese focused on technical solutions while the Europeans focused on policy frameworks enabling technical solutions to develop;
- Published a comprehensive guidebook to energy efficiency in buildings and submitted it to MoHURD;
- Submitted a policy report to MoHURD for consideration in the creation of the next China's Five Year Plan.

”

Energy efficiency in buildings is not just about benefitting from lower utility bills and lowering resource usage. It is about quality of life. Urban city life in China can be stressful, so peoples' homes need to be a place to retreat and recover.

Malte Beckmann
Wuppertal Institute
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Chongqing University

Shenzhen Energy Efficiency Testing & Evaluation Centre

Sichuan Construction Technology Development Centre



SCAN FOR MORE PROJECT
INFORMATION

SUS BIRD - Sustainable building interior renovation and decoration

CHINA

● SUSTAINABLE HOUSING
AND BUILDING

IMPLEMENTATION PERIOD: 12/2009-11/2013
BUDGET: EUR 2,122,828 (EU contribution 80%)



CHALLENGE

The building, construction, and decoration market in China is booming. Renovation and decoration can cause severe health problems for both the workers of renovation/decoration companies (related to the exposure to dust, solvents, etc.) and the inhabitants of the buildings living with indoor air pollution. Due to the substantial amount of materials used, the generation and inadequate disposal of waste, and the hazardous emissions, renovation and decoration can have a serious impact. The absence of product information, insufficient capacity, and limited access to sustainable products, sustainable renovation and decoration services remain a challenge in China.

OBJECTIVES

The project sought to improve the health of inhabitants of newly decorated and renovated buildings and the employees of decoration companies, as well as a better environment, by reducing energy consumption and environmental impact related to the building interior renovation and decoration (BIRD) practices and production.

OUTCOMES

- Achieved adequate supply and easy access to healthy and environmentally friendly decoration products and appliances for consumers and SMEs;
- Increased capability of SMEs to apply sustainable BIRD products, working materials and procedures;
- Market pull created through increased awareness and information of end consumers;
- The seeds for incentives for sustainable BIRD has been set through an enhanced policy framework;
- An institutional network of Sustainable BIRD SMEs (™Sustainable BIRD Initiative) to promote (pilots, show cases) & support sustainable BIRD has been established;
- A case of an innovative market transformation mechanism applied in China has been created that is replicable in other Asian countries.

”

Now we realise that the sustainability of interior decoration highly relies on the products we choose. We should let more people know what kind of BIRD products are sustainable. We will promote this concept to our customers by providing them with comprehensive solutions.

Mr. Huan Qi
Marketing Director
Beijing LBY Office Environment
Engineering Co., Ltd.



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IVL Swedish Environmental Research Institute Ltd,
Sweden

Science and Technology Promotion Center of
MoHURD (CSTC)

United Nations Environment Programme, Division
of Technology, Industry and Economics (UNEP DTIE),
France



SCAN FOR MORE PROJECT
INFORMATION



Train the Trainers - Energy saving techniques and technologies

CHINA

SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 2/2009-7/2013
BUDGET: EUR 2,979,198 (EU contribution 80%)



CHALLENGE

The construction industry in China is known for building new structures quickly and cheaply. The construction boom has led to low-energy efficiency in many buildings, with poor quality construction materials and poor installation techniques. Many investors still have the mind-set that good quality, efficient buildings are not worth paying for. The Chinese construction sector contributes substantially to the country's CO₂ emissions. Construction itself as well as the daily use of buildings, i.e. heating and cooling within the residential sector, represent almost one third of China's total energy consumption. Therefore, the building sector is an important link in the challenge of mitigating climate change in China.

OBJECTIVES

The project aimed to improve energy efficiency in the Greater Shanghai region, by constructing more environmentally friendly buildings. It empowered the Chinese construction sector to incorporate energy efficiency measures in the design and construction of buildings. The project shared European experience in energy efficiency, building material standards and installation techniques. The project addressed these issues through:

- Providing training courses to Chinese construction SMEs and government officials;
- Promoting European building standards and best practice;
- Contributing to the development of an "enabling policy environment".

OUTCOMES

- Established a permanent "Sino-European Energy-Efficient Training and Research Centre" that replicates, extends and scales up the original pilot project;
- Expanded the range of services and target groups as well as the geographical outreach of the project;
- Promoted European building standards, certifications and best practices;
- Provided policy input at regional, national, supra-national levels.certification;
- Developing standards for processing green and safe bamboo shoot products.

”

The training has inspired me to develop a more systemic view on how our products relate to the whole energy consumption cycle. We can save energy starting from the very initial stage of production

Le Haiqing
Sales Manager
Shanghai ABM Rock Wool



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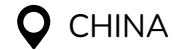
Swedish Environmental Research Institute (IVL)
Tongji University



SCAN FOR MORE PROJECT
INFORMATION



WESTERN CHINA SUSBUILD - Upscaling and mainstreaming sustainable building practices



CHINA

● SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 1/2016-12/2019
BUDGET: EUR 2,800,000 (EU contribution 80%)



CHALLENGE

China's unprecedented socio-economic growth drives expansion in the building sector, which has added about 2 billion m2 annually over the last decades. The building sector accounts for about 30% of the final energy consumption in China. The Chinese government has issued its first green building standard in 2006. By 2020, the Chinese government aims at 50% of new constructions. Only 10% of the construction projects currently reach that standard, out of which 90% are located in the developed eastern China. In western parts of China, new construction of green buildings is still in a pilot stage.

OBJECTIVES

The project aims at scaling up sustainable building practices in less developed western China, reducing climate and resource impacts of the building sector, and contributing to sustainable socio-economic growth in China. It seeks to foster sustainable building practices among MSMEs in Chongqing City and Yunnan province with replication potential for the western China.

OUTCOMES

- Providing capacity building and technical support for MSMEs in the building supply chain;
- Raising MSME users' awareness about energy saving and enhancing facility managers' capacity of energy management in large commercial buildings;
- Developing concrete solutions to facilitate the access to finance for MSMEs producing building materials/components and energy service MSMEs;
- Supporting the development of policy instruments fostering the uptake of sustainable building practices;
- Improving business network fostering sustainable buildings;
- Disseminating key lessons of sustainable building practices to the whole China and at the regional level in Asia.

”

In China, the building and construction sector offers tremendous opportunities for the country to pursue resource efficient and low carbon development. For us, this means supporting an integrated multi-stakeholder approach by an effective combination of capacity building facilitating SMEs' access to finance, enhancing business networks, and working with the government on an enabling policy framework.

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Project Manager

Wuppertal Institute for Climate, Environment and Energy

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Chongqing Association of Building Energy Efficiency (CQBEEA)

Chongqing Economic Promotional Centre for Building Material Industry (CEPCBM)

Yunnan Development Centre for Building Technology (YNBTDC)

Yunnan Engineering Quality Supervision and Management Station (YEQSMS)



SCAN FOR MORE PROJECT INFORMATION



SUBUMA - Environmental declaration scheme for construction and building materials

📍 MALAYSIA

● SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 12/2012-12/2015
BUDGET: EUR 2,043,229.41 (EU contribution 80%)



CHALLENGE

Over the last two decades, Malaysia has undergone a rapid pace of infrastructure development that has continued to the present time. This growth is still evident in the region as demonstrated by the 4.1 % expansion in the construction industry. However, the new trend is likely to impact this sector as buyers consider the information on greenhouse gas emission as important for their procurement decisions. The majority of multinationals state they would be prepared to source products from a different country if this reduced carbon emissions. This represents a real opportunity, and significant risk for Malaysian SMEs.

OBJECTIVES

The project aimed at developing guidelines, tools and the supporting mechanism for product footprinting and labelling that meet the needs of the local and international market, and creating the recognition and preference for sustainable products from SMEs in the Malaysian construction and building materials sector.

OUTCOMES

- Developed carbon footprint labelling scheme which was based on international standards, such as the ISO series of standards on environmental management, GHG protocol of the World Resources Institute and PAS 2050 guidelines on carbon footprinting, ensuring global market acceptance;
- 13 companies had met the requirements of the audit process and received license to use the SIRIM carbon footprint logo;
- 10 product categories that have been identified / labelled for the pilot programme, namely wall coatings, sanitary ware, plumbing pipes, ceilings ceramic tiles, floor finishing, wall panels, masonry units, structural steel, architectural steel and architectural roofing provide impetus to other manufacturers to improve their environmental performance.



”

The long-term synergetic business partnerships established during this project would not have occurred without the SWITCH-Asia programme.

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Federation of Malaysian Manufacturers (FMM)

Malaysia Green Building Confederation (MGBC)

The Carbon Trust, UK



SCAN FOR MORE PROJECT
INFORMATION

Greener Construction Project

📍 MONGOLIA ● SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 3/2013-2/2017
BUDGET: EUR 2,482,103 (EU contribution 80%)



CHALLENGE

The construction industry in Mongolia has expanded rapidly in recent years, but little attention is being paid to the environmental impacts or to energy efficiency considerations. One of the main materials used by the construction industry in Mongolia is concrete. The substitution of the aggregates (natural materials) used in concrete with fly ash would improve the insulation capacity of concrete, thus reducing energy use and reducing the use of natural resources.

OBJECTIVES

The project seeks to promote SCP patterns and behaviour in the Mongolian construction industry by mobilizing the private sector along with relevant public sector authorities to develop construction products using fly ash and through advocacy to facilitate the use of green construction products and practices.

OUTCOMES

- Project research and development activities have designed cost-effective and eco-friendly products and established a regulatory framework based on related standards;
- Three ash based construction materials (AAC blocs, aggregate blocs and dry mortar mixture) have been developed;
- 100 SMEs in the construction industry now make and sell fly ash construction products;
- 14 vocational training schools (TVET) have signed a MoU with Caritas Czech Republic with 176 teachers have received training. Currently, 5 schools already start teaching 'Green construction practices' courses;
- Signed 26 MoU with state agencies, labour departments of Erdenet, Darkhan and Ulaanbaatar districts (9 districts), and professional associations.



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Swedish Environmental Research Institute (IVL)



SCAN FOR MORE PROJECT INFORMATION

Recycling Building Materials - Improving resource efficiency and cleaner production in the construction sector

MONGOLIA
SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 3/2016-11/2020
BUDGET: EUR 1,562,500 (EU contribution 80%)



CHALLENGE

The booming construction industry in Mongolia has resulted in the production of massive amounts of Construction and Demolition waste (CDW). It is estimated that this waste accounts for 20-25% of all overall solid waste produced in Mongolia. CDW is thus one of the largest waste streams. In Ulaanbaatar (UB) and other cities, the construction waste is dumped illegally. A huge part of the construction and demolition work is done by small and medium-sized contractors and subcontractors. Thus, SMEs are producing most of the CDW, and their current unsustainable approaches have negative impacts on human health and the environment. CDW management represents a significant challenge because the performance of SMEs in construction and

demolition debris management is still poor. There are difficulties which keep SMEs away from good CDW management practices. In addition, CDW Recycling SMEs in Mongolia face a lack of knowledge and the technical capability to deal with negative environmental impacts. Furthermore, there are no specific regulations or certifications for a proper demolition of an End of Life (EoL) building, recycling and reuse of CDW.

OBJECTIVES

To promote sustainable production and consumption in the construction sector, through supporting SMEs to switch to more resource-efficient practices.

OUTCOMES

- Prepare key stakeholders in the construction sector to adopt sustainable Construction and Demolition Waste (CDW) management practices.
- Test, verify, approve and prepare a CDW-based product for commercial production.
- Raise awareness of the advantages of CDW-based products among SMEs and state administration bodies.
- Create a more conducive legal framework to sustainable CDW management.

“

We tried to put the techniques and methods of recycling and reusing of construction and demolition waste into practice after our engineers and employees participated in the project's training. For example, we demolished three facilities of the General Customs Administration and 85% of them were reused to build the Sports facility of the Selenge province. We separated wooden materials from around 38,000 tons of construction and demolition waste and delivered it to about 120 households for firewood usage. We also provided more than 200 trucks of soil from demolition waste to rehabilitate the broken dam in Khentii province. There are many such examples.

DMr. Lkhagvajav. M
Director of the construction and demolition company Kharvaach Mergen LLC.



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Czech Republic Development Cooperation

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- Caritas Czech Republic (CCR)

Mongolian National Recycling Association (MNRA)

Mongolian University of Science and Technology (MUST)

TUD Delft University of Technology

Sheep Wool for Building Material (SWBM)

📍 MONGOLIA ● SUSTAINABLE HOUSING
AND BUILDING

IMPLEMENTATION PERIOD: 1/2013-5/2016
BUDGET: EUR 891,412 (EU contribution 80%)



CHALLENGE

The most of Mongolian wool production (more than 90%) is coarse wool. There is very little demand for coarse wool and it is sold almost without any value for pastoralists. This type of wool is used mainly for production of carpets and felt mainly for GER insulation. Thus it is traditionally used as a construction material. Technology for the production of sheep wool building insulation (SWBI) and its usage within construction industry is known in the Czech Republic and other European countries. Additional know how transfer to wool processing SMEs and to the Mongolian construction sector will be one of the key outcomes of the project.

OBJECTIVES

The project sought to develop sustainable supply chain of SWBI as a green, environmentally-friendly innovative product improving resource efficiency, contributing to poverty reduction, economic development and reducing air pollution and greenhouse gas (GHG) emissions.

OUTCOMES

- Training of SMEs on marketing of SWBI;
- Facilitated funding for SWBI production start-up and linking SMEs with financial institutions;
- Developed minimum quality standards of sheep wool suitable for insulation;
- Training of small scale suppliers/pastoralists on minimum quality standards;
- Linked producer SMEs with small-scale suppliers/pastoralist;
- Designed marketing strategies and training on marketing of SWBI;
- Conducted survey on possible funding ("green financing") for construction sector;
- Prepared drafts of prototype designs, containing technical condition description, basic design concept including necessary construction details.



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National Association of Mongolian Agricultural Cooperatives (NAMAC)

SEVEN - Energy Efficiency Center, Czech Republic



SCAN FOR MORE PROJECT
INFORMATION



Switch off Air Pollution - Energy efficiency advisory and financial intermediation for sustainable housing

📍 MONGOLIA • SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 2018-2021
BUDGET: EUR 2,191,896,24 (EU contribution 80%)



CHALLENGE

The Government of Mongolia has declared air pollution in Ulaanbaatar a state emergency in early 2017, with renewed ambitions and openness to explore additional ways to tackle the issue. Despite many projects and actions conducted, including e.g. free electricity during night time in ger-areas, use of electric heaters and recharge heat accumulators for day time use, addressing the issue of thermal efficiency of individual houses is playing an important role when developing sustainable solution for pollution challenges in Ulaanbaatar.

OBJECTIVES

- Promote sustainable consumption patterns and behaviours in the individual housing sector of Mongolia through energy efficiency advisory and financial intermediation.
- Reduce pollution in Ulaanbaatar's Ger areas through improved energy efficiency in housing, awareness raising, technical training and technological support to MSMEs and households.

WAY FORWARD

- The project estimates that over the next four years, 1.000 EE houses will be retrofitted, saving 1.600 mT of coal and avoiding the emission of 6.000 TeqCO₂.
- Appropriate technical solutions and recommendations for energy efficient dwellings are defined and shaped for dissemination to construction professionals and households.
- Construction sector capacity to sell and set-up EE retrofit or building is strengthened through gender sensitivity.
- Final households and SMEs are pro-actively linked, through finance intermediation, to project relevant financing tools and subsidy mechanisms.
- Energy efficient and gender perspective solutions and practices are disseminated with the support of energy advisors, finance officers and awareness raising actions.
- Conditions for scale-up and replication of the project package tool are in place, including gender mainstreaming.



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Ger Community Mapping Center (GCMC)

Mongolian National Construction Association (MNCA)

People in Need (PIN)



SCAN FOR MORE PROJECT INFORMATION



Kabul Green Homes

AFGHANISTAN • SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 1/2016-11/2020
BUDGET: EUR 2,161,785 (EU Contribution 79.80%)



CHALLENGE

Afghanistan is the 15th most vulnerable country in terms of climate change vulnerability (German Watch Global Climate Risk). Afghanistan experiences cold and snowy winters with extreme temperature variations between night to day, reaching -20°C in winter in Kabul. However, much of the country is characterised by 300 days of sunshine yearly, meaning energy efficient houses that reduce heat losses in winter and improve sun gain are well adapted to the Afghan climate. Despite this high solar energy potential, Afghans rely on traditional solid fuels (firewood, animal dung cakes, crop residues and charcoal for cooking and heating).

OBJECTIVES

The project aims to contribute to the Afghanistan National Development Strategy's main pillars, particularly on poverty reduction through a private sector, market led approach. The project seeks to tackle the lack of access to finance for green consumption, to strengthen the emerging Energy Saving Solutions (ESS) value chain and engage networks of stakeholders.

OUTCOMES

- Building the capacity of institutions to monitor the effect of energy efficiency on fuel consumption and on climate, to identify the potential impacts of energy efficiency regulations and practical applications for buildings;
- Promoting new markets for innovations and changes of lifestyle;
- Supporting the integration of new strategies for upgrading unplanned settlements;
- Improving the living conditions of the households investing in ESS;
- Providing access to home improvement loans to offer a sustainable financing solution for ESS whilst meeting large scale demand;
- Strengthening dialogue with institutions to contribute to a favorable environment for scaling up new SCP pattern and replicating in similar context.



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SCAN FOR MORE PROJECT INFORMATION



SUSBUILD Bangladesh - Promoting sustainable buildings

📍 BANGLADESH

● SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 1/2016-6/2019
BUDGET: EUR 2,000,000 (EU Contribution 90%)



CHALLENGE

In Bangladesh, brick-making is the largest source of greenhouse gas (GHG) emissions, as the industry consumes 2.2 million tonnes of coal and 1.9 million tonnes of firewood and emits 8.75 million tonnes of greenhouse gas (GHG) emissions annually. Brick making is characterised by low energy efficiency, prevalence of small-scale kilns with limited financial capacity, and dominance of a single raw material (clay) and product (solid clay brick). Transformative changes in the brick industry are required, not only switching to cleaner brick kilns, but also diversifying their production inputs in order to save natural resources, reduce GHG emissions, and increase energy efficiency.

OBJECTIVES

The project aims to contribute to a reduction in GHG emissions, deforestation and land degradation in Bangladesh. It specifically seeks to promote sustainable and eco-friendly building materials and practices in Bangladesh within an enabling policy environment.

OUTCOMES

- Conducting research and design of sustainable building materials;
- Strengthening environmental certification and eco-labelling schemes for building materials;
- Organising multi-stakeholder awareness and marketing campaigns on sustainable building practices;
- Providing capacity building support to technical experts on sustainable building and for micro, small and medium-sized enterprises (MSMEs) to switch to alternative bricks;
- Setting up replicable business models of green technology and engaging with financial institutions to improve access to finance;
- Engaging with policymakers to promote and regulate green construction and public procurement.



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11 million wage earners consider a cozy home an important indicator of stability. The multi-stakeholder's Forum initiated under this project is working hard to bridge sustainable housing practices with the rising multibillion-dollar housing market. The changes we have seen at the policy level are already paving the way towards the path to green growth.

Anisur Rahman Chowdhury
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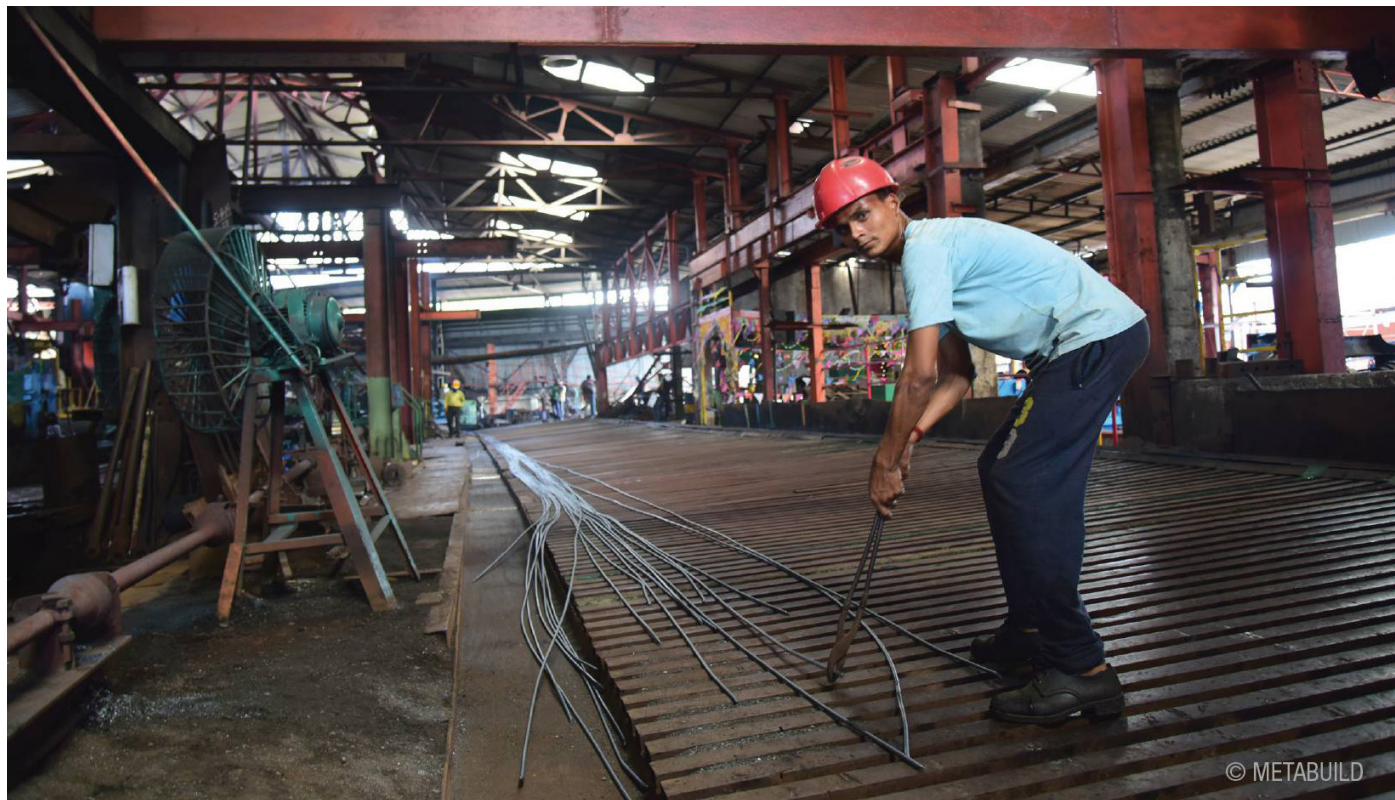
SCAN FOR MORE PROJECT INFORMATION

METABUILD - Resource efficient supply chain for metal products in the building sector in South Asia

📍 BANGLADESH,
NEPAL, SRI LANKA

● SUSTAINABLE HOUSING
AND BUILDING

IMPLEMENTATION PERIOD: 3/2016-2/2020
BUDGET: EUR 2,713,497.53 (EU Contribution 90%)



CHALLENGE

The construction sector uses various metals like steel, iron, aluminum and copper. In developing economies, more than 60% of the steel is consumed to create new infrastructure. Due to increasing pressure on energy and water resources, economic edge can be sustained only through high resource efficiency. Specific problems in metal products supply chain include lack of modernisation, sub-optimal operation leading to inefficiencies, lack of technical and financial support for improving operations, lack of skilled manpower and traditional mind-set. Adopting resource efficient cleaner production (RECP) measures will improve economic and environmental performance, including reducing greenhouse gas emissions.

OBJECTIVES

The project aims at implementing sustainable production processes and practices in 400 SMEs and creating conducive environment for further adoption of sustainable production processes in the metal products supply chain for building and construction sector.

OUTCOMES

- Capacity building of 45 local RECP consultants;
- Addressing a total of 1,000 stakeholders covering the entire value chain of metal products for building and construction sector;
- Stepwise implementation of RECP in 400 companies, with 5-10 “pioneer companies” in each location covered in the first year;
- Organising a technology fair in each of the three project countries, involving RECP technology suppliers;
- Supporting companies to access funding and building their capacity on financial literacy; in parallel, building capacity of bank branches on RECP financing;
- Organising roundtables of customers which are construction corporations - total 200 customers across three countries would be covered;
- Engaging with policymakers of the respective countries in a joint forum on RECP.



”

We have achieved success by listening to the SMEs and addressing their pain points, using local language and easy to understand messages, always highlighting the business case of SCP and engaging with all stakeholders. In all three countries, the project is leaving behind trained teams, methodology, templates, showcases and new networks with different stakeholders.

Dr. Malini Balakrishnan

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National Cleaner Production Centre (NCPC)

Society for Environmental and Economic Development Nepal (SEED Nepal)

STENUM Asia Sustainable Development Society (STENUM Asia)



SCAN FOR MORE PROJECT
INFORMATION

Green Homes



NEPAL

● SUSTAINABLE HOUSING
AND BUILDING

IMPLEMENTATION PERIOD: 1/2013-12/2015
BUDGET: EUR 1,015,525 (EU Contribution 85%)



CHALLENGE

The housing sector contributes significantly to the local economy but also causes pollution and promotes unsustainable living. 18 % of total urban employment in Nepal is contributed by construction industries and there will be an additional need of 1 million urban houses from 2011-21. The sector imports most of its construction materials from India and China, thus creating large carbon footprints. To enhance sustainability, it is imperative to curb the energy consumption in the housing sector – both embodied in construction materials as well as during operation.

OBJECTIVES

The project aimed at creating an enabling policy environment to promote sustainable housing; strengthening supply chains for sustainable housing and building capacity of SMEs to deliver household level green technologies and services, and stimulating demand for sustainable housing.

OUTCOMES

- Established partnerships with the Department of Urban Development and Building Construction (DUDBC), Ministry of Urban Development, Ministry of Federal Affairs and Local Development (MoFALD) and three selected municipalities – Lalitpur, Pokhara and Dharan;
- Supported DUDBC in developing Nepal Green Building Guidelines which is currently under peer review;
- MoFALD has included Green Homes standard and norms in recently developed Building By-laws and Training Curricula for New Municipalities;
- The selected municipalities have developed incentive mechanisms to promote green housing in their plans and building byelaws. These include subsidy in adopting green components, subsidy in building permit fee, and acknowledgements of Green Home owners and SMEs;

- 35 SMEs producing hollow concrete blocks (HCB) in Pokhara and more than 60 SMEs working in solar energy business have improved their products and services;
- In Dharan, three SMEs started producing HCB, with two new SMEs are in process of establishing businesses. About 20 women groups started implementing solid waste management and roof-top farming.

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Shelter & Local Technology Development Center
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SCAN FOR MORE PROJECT
INFORMATION

VSBK - Vertical Shaft Brick Kilns and Sustainable Construction Practice in Nepal

NEPAL

SUSTAINABLE HOUSING AND BUILDING

IMPLEMENTATION PERIOD: 1/2012-7/2015

BUDGET: EUR 2,146,750 (EU Contribution 90%)



CHALLENGE

The cotton and textiles sector accounts for 40% of Pakistan's total labour force and nearly 60% of Katmandu valley is viewed as one of the most polluted areas in Asia. Exhaust fumes have increased four times over the past decade. Poor dispersion conditions, due to high hills and low wind-speeds are pre-disposing Kathmandu to serious air pollution problems. An increasing number of vehicles and conventional brick kilns are worsening the situation. The construction sector, including conventional brick production is a key source of CO₂ emission.

OBJECTIVES

The project aimed at promoting sustainable production and consumption patterns in the construction industry, by raising awareness of private sector stakeholders for green building materials and solutions, and by providing consumer information on the benefits of clean energy and energy-saving building material. Specific objectives included:

- Reducing energy consumption and CO₂ emission from the brick and building material production sector in Nepal;
- Promoting SCP patterns in the construction sector;

- Mobilising and capacitating the private sector for green building materials and solutions in cooperation with financial and public sector authorities;
- Informing consumers about the benefits and choices of cleaner and low energy building materials;
- Creating an enabling policy and regulatory framework.

OUTCOMES

- In Nepal, construction services are mainly provided by small and medium-sized contractors. Through the project, roughly 6,000 construction specialists, masons, engineers, architects, small contractors and entrepreneurs have enhanced their skills in the application of well-tested sustainable construction technologies, such as concrete hollow block (CHB), micro-concrete roofing, reinforced cement concrete (RCC) door and window frames, and the use of natural round aggregate (NRA);
- Demonstrated the use and application of sustainable construction practices to consumers. The first behavioural changes have been notified; there was an increased use of locally available construction materials, such as NRA;
- Attracted private investment of roughly EUR 2.5 million for 22 new brick-producing VSBK shafts, creating more than 1500 green jobs;
- Organised an International Brick Symposium, involving nine countries, ranging from Peru to Thailand, from Germany to South Africa. The event facilitated knowledge exchange on VSBK technologies within and beyond the countries covered by the SWITCH-Asia programme.

“

Now we can supply our district with 2 million bricks per year (with an estimated demand of 3 million per year) at half the former price, saving transportation and energy costs. We are optimistic that we can optimise the production process further and produce even more high quality bricks.

Ded Raj Khadka

Owner of Arun VSBK, Sankhuwasabha District

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ASEAN SHINE

INDONESIA, MALAYSIA, PHILIPPINES, THAILAND, VIETNAM

AIR-CONDITION INDUSTRY

IMPLEMENTATION PERIOD: 1/2013-12/2016
BUDGET: EUR 2,186,374 (EU Contribution: 80%)

Promotion and Deployment of Energy Efficient Air-conditioners in ASEAN



CHALLENGE

Air conditioners (ACs) represent close to 50% of household electricity consumption in ASEAN (Association of Southeast Asian Nations). Currently, the market share of ACs with an energy efficiency ratio (EER) at or above 3.2 (which is China's EER for Minimum Energy Performance Standard/MEPS) is only around 25%. Assuming all ASEAN countries adopt a MEPS of 3.2, the electricity consumption of residential sector would be reduced by 5 373 GWh per annum, corresponding to a reduction of 2.7 million tonnes of CO₂ emissions per annum.

OBJECTIVES

The ASEAN SHINE project sought to phase out energy inefficient ACs and increase the market share of more highly efficient ACs within the ASEAN (Association of Southeast Asian Nations) region. This led to a reduction in electricity consumption and GHG emissions, as well as an enhanced regional market integration through harmonised standards. The specific project objectives included:

- Harmonising standards for testing methods;
- Developing a regional policy roadmap;
- Developing national policy and regulatory roadmaps for an increase of minimum energy performance standards;

- Building capacity of testing laboratories;
- Building capacity of local AC manufacturers (SMEs);
- Changing consumer purchasing attitudes in favour of more highly efficient ACs and the electronic producing industry.

OUTCOMES

- Harmonised Standard for All ASEAN Countries
- Establishment of a Regional Policy Roadmap
- Direct Scaling up to Efficient Lighting
- Expanding to Other Household Appliances
- Creating Country Chapters
- Conducting Awareness Campaigns
- Creating the Right Conditions



SCAN FOR MORE PROJECT INFORMATION

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ASEAN SHINE has paved the way for greater cooperation in ASEAN in terms of harmonisation of standards, contributing to the ASEAN Economic Community, as well as in promoting energy efficiency. ASEAN SHINE has become a public-private partnership under the United for Efficiency Initiative managed by UN Environment (UNEP) and expanded its scope to lighting, refrigerators, electric motors and distribution transformers. With the strong support of ASEAN governments, manufacturers and the international community the project has become a platform to advance sustainable energy in ASEAN. The SHINE model is now being duplicated in Latin America.

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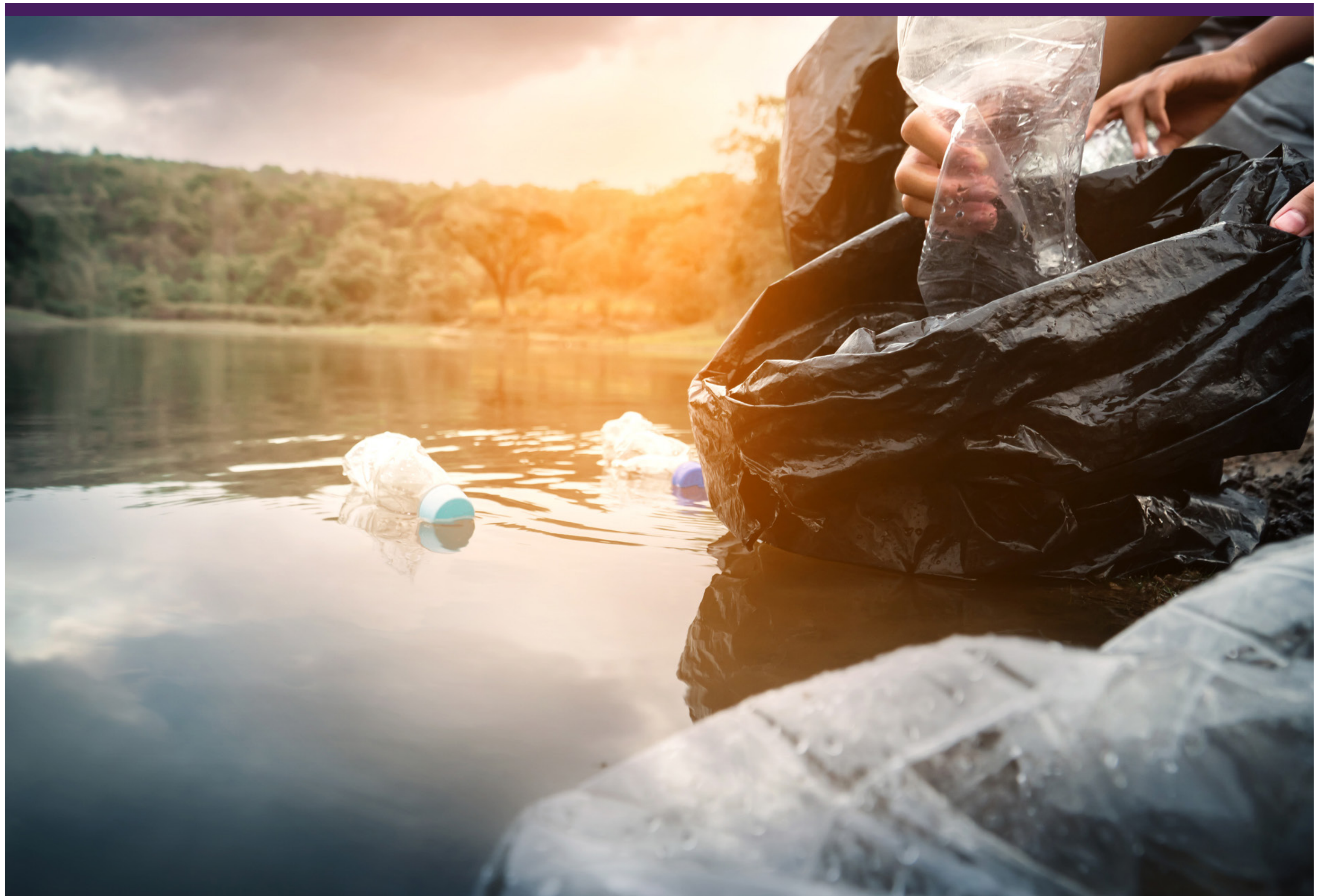
European Copper Institute, Belgium

Integrated Institute of Electrical Engineers (IIEE), Philippines

Research Center for Energy and Environment (RCEE), Vietnam

SIRIM QAS International, Malaysia

UNEP – Division of Technology, Industry and Economics (DTIE), Energy Branch



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

CHINA

WASTE MANAGEMENT

IMPLEMENTATION PERIOD: 2020-2024

BUDGET: EUR 2,369,535.05 (EU contribution 75.96%)



CHALLENGE

China has a population of 1.4 billion people, a sufficient food supply and a well-designed waste management system are essential to building a sustainable food consumption market in this vast country. If wealth continues to grow in China, food waste is likely to increase, which is a trend seen in many developing countries. But there is a change on the horizon: food service providers are beginning to understand the importance of combating waste in order to reduce business costs, protect the environment, and meet increasing customer demand for more sustainable operations. Chinese government has been taking measures in recent years to improve its waste management system nation-wide by calling for “Zero-Waste City” pilots. However, MSMEs (micro, small and medium-sized enterprises) which make up 97% of China’s

enterprises fall into a critical “gap” because they are often not the target audience for food waste reduction resources or campaigns. This project aims to close that gap by empowering China’s MSMEs to respond to the food waste challenge. Simply put, reducing and better managing food waste is one of the easiest and most effective ways to mitigate the environmental impact of our food system and sustainably feed our communities.

OBJECTIVES

Catalyse the prevention, reduction, and diversion of food waste among MSMEs in China’s hospitality sector. More specifically, the project aims to:

- Promote adoption of more resource-efficient processes and services among MSMEs, including an actual reduction of food waste;

- Develop a Food Waste Policy Proposal to increase awareness on Sustainable Consumption and Production (SCP) and distil knowledge for wider replication, enhance policy dialogues, and support strengthening policies related to curbing food waste;
- Support sustainable consumption and consumer 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.

WAY FORWARD

Targeted MSMEs in China’s hospitality and food services sector will be empowered to implement solutions to reduce and better manage food waste, and momentum will be created for replication in the wider sector. By 2024, at least

- 350 MSME staff will be trained on food waste prevention, reduction and diversion practices;
- 100 MSMEs will applying Sustainable Consumption and Production Practices;
- 50 MSMEs in the hospitality and food services sector will have reduced their food waste by 10% and above.
- Industry associations in the wider hospitality and food services sector will endorse the MSME Food Waste Practical Guide, recommending its use to their members, and inspiring wider replication.



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

📍 MONGOLIA ● WASTE MANAGEMENT

IMPLEMENTATION PERIOD: 2020-2024
BUDGET: EUR 3,513,601.10 (EU contribution 80%)



CHALLENGE

The Government of Mongolia has undertaken a number of initiatives related to waste and the 3Rs (Reduce Reuse Recycle) at different levels, which have been, or are being, implemented. However, some of these have not suitably addressed the waste management problems and no overall coordinating system exists for waste management in the country. As a result, solid wastes continue to be dumped regardless of location and without any scientific treatment. For example, there is no regular waste collection and disposal schedule, no disposal options except for landfills in UB and other aimags, and no special facilities for disposal of hazardous waste. These issues lead to negative impacts on both the environment as well as on public health in the country. Furthermore, the lack of consolidated and comprehensive data on waste generation and its management leads to a gap in future planning and implementation of sound waste management strategies.

The 3R4UB project supports SMEs and MSMEs in adopting and financing SCP practices from demonstration to practical replication of sustainable urban landscape and waste management. It mobilizes the private sector, financial intermediaries, producers and consumer organisations and social groups to work in harmony with the Urban Landscape and Waste Management Department of the Mayor's office - City of Ulaanbaatar (UB). The project will also be disseminating design tools and an integrated design approach on SCP and Circular Economy for UB to stakeholders (government, MSMEs, citizens, civil society). It will follow 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 UB's societal and environmental problems, as tested by a pilot demonstration.

OBJECTIVES

3R4UB will initiate reduction and reuse of waste, in accordance with the provisions of EU Directive 2008/98/EC, a robust model of separate collection, managed by MSMEs and the City of UB, through the Pilot Demonstration. It will build capacity of line-ministries and sub-national agencies to promote SCP, through the involvement of the Mongolian Government Agency Fresh Water Resources and Nature Conservation Centre (FWRNCC) and improve their expertise through technical training, workshops and field visits. The project will also facilitate interaction between MSMEs and financial intermediaries to create the necessary conditions for accessing finance for the SCP investments, forming a working group and financial framework for key stakeholders such as the Mongolian Banking Association (MBA). It will also assist collaboration among companies that collect recyclable waste, sorting and treatment plants, and industries that reuse waste as a second raw material for profitable economic investments towards a circular economy approach. An analysis of the infrastructure needed to allow sustainable management chains for municipal solid waste (MSW) will be backed by an economic analysis. More specifically, 3R4UB will:

- Promote the adoption of SCP practices among Local Authorities (LAs), citizens and MSMEs, notably in plan design, awareness campaigns and a pilot project;
- Build capacity of line ministries and sub-national agencies to promote the SCP, and improve their expertise through technical training, workshops and field visits;
- Facilitate interaction between MSMEs and financial intermediaries to create the necessary conditions for accessing finance for the SCP investments;
- Change consumer habits, directed primarily at younger generations and future social actors;
- Forge strong links between companies that collect recyclable waste, sorting and treatment plants, and industries that reuse waste as a second raw material.

WAY FORWARD

- Conducive conditions for the implementation of a sustainable system of collection of MSW through urban planning;
- Increased public awareness by encouraging the sorting of household waste;
- Improved production process of MSMEs through the collection of materials selected at source and access to a waste sorting plant;
- Income generation from the sale of recyclable material due to higher quality obtained by the collection and sorting process as through greater cleanliness, homogeneity and uniformity.



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SCAN FOR MORE PROJECT INFORMATION

Prevent Plastics - Promoting a circular economy and resource efficiency through a clean and recycling-based economy

MYANMAR
WASTE MANAGEMENT

IMPLEMENTATION PERIOD: 5/2020-4/2024
BUDGET: EUR 2,070,000 (EU contribution 90%)



CHALLENGE

Myanmar has been facing considerable challenges with waste management. Rapid economic growth and urbanisation came along with severe problems resulting from ineffective systems for waste collection, transport and disposal. According to the French Myanmar Chamber of Commerce 80 million plastic bags are used every day in Myanmar. More than 4,160 tons of municipal waste are generated per day in Yangon and 1,120 tons in Mandalay. Out of this around 13% is plastic waste. In general, total solid waste production in Myanmar tripled during the previous 5 years. Both Yangon and Mandalay Regional Government as well as Ministry of Natural Resources and Environmental Conservation (MoNREC) have recognized the lack of capacities in implementing sustainable

waste management in industrial zones. Waste service providers in the industrial zones and the government staff of the Yangon's Pollution Control and Cleansing Department PCCD need structured, comprehensive and needs-based trainings. MSMEs producing eco-friendly packaging, recycled products or composting benefits (e.g. fertilizers) are still less known to mainstream costumers. They face constraints in terms of access to finance in order to upscale their offerings. Green Finance is a topic that the Myanmar Banks' Association MBA has been aware of due to the continuous engagement within another SWITCH-Asia project, SMART Myanmar. However, a common regulatory framework is still missing to further develop their SME finance segment. This includes the strict collateral requirements and short repayment periods.

OBJECTIVES

The project addresses some of these key issues putting emphasis on: waste management in industrial zones; increasing the likelihood and attractiveness of adopting more sustainable options for packaging by working at the MSMEs level in cooperation with the retailer's association and identifying green finance possibilities; and raising awareness for young consumers, heads of home and producers (supermarkets and other retailers).

The main objective of the project is to promote sustainable production and consumption patterns in Myanmar through awareness raising and best practices on waste management. The action's three specific objectives are as follows:

- To adopt sustainable management practices in 4 Industrial zones;
- To increase availability of eco-friendly packaging for consumers and producers;
- To increase consumer awareness on reduction and prevention of plastics.

WAY FORWARD

- South Dagon Industrial Zone 1, Shwe Pyi Thar Industrial Zone 1 and Shwe Lin Ban have become model zones, improving their overall waste management in Myanmar, specifically with regard to plastics reduction and reduced illegal dumping;
- Improved stakeholder cooperation for better waste management in the industrial zones (industrial symbiosis) and public-private partnerships for waste collection is established;
- Professionalised waste service provision is available and capacities for industrial management committees and MMRA have increased;
- 15 MSMEs have up-scaled business which offer sustainable packaging or waste disposal alternatives and 10 have accessed green loans;
- Increased consumer awareness and consumer information in Myanmar about waste avoidance, in particular with a focus on plastics.



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SCAN FOR MORE PROJECT
INFORMATION



PROTOPRINT



INDIA

● WASTE MANAGEMENT

IMPLEMENTATION PERIOD: 2020-2024
BUDGET: EUR 1.416.348 (EU contribution 80%)



CHALLENGE

Plastic waste management has been increasingly recognized as a serious challenge in India. A governmental report in 2019 estimated that the country generates around 26,000 tons of plastic waste every day, of which 9,400 tons is left uncollected or littered. The vast majority of this plastic is generated in urban cities, that have grown dramatically in size over the past few decades. Plastic waste in these cities is often unsegregated from other forms of municipal solid waste and needs to be sorted before it can be effectively recycled. This is an extremely labour-intensive process that relies on informal workers, called waste-pickers, to segregate the plastics by hand. Despite the fact that these individuals form the base of the recycling pyramid, they work under dangerous conditions and come into daily contact with harmful materials, including hazardous and medical waste, resulting in

much greater risks of injury and disease. They sell the plastic they collect to local middle-men, who in-turn aggregate and sell the material to scrap-dealers and recycling plants. While there is significant value generated in the recycling process, the waste-pickers themselves are poorly compensated for work that they do, often unable to escape poverty. Estimates suggest that there are over a million waste-pickers in India, mostly consisting of vulnerable populations such as migrants, women and children.

Waste plastic has been shown to have a number of negative impacts on the environment and on human health. Plastic run-off into rivers and streams contaminates water sources, kills aquatic life, poisons drinking water and results in the bio-accumulation of microplastics within the food chain, ultimately impacting humans. Plastic waste on land leaches toxic chemicals into groundwater and degrades soil. In India, waste

plastic is often burned on street corners, releasing toxic air pollutants. The production of plastics involves the processing of fossil fuels, meaning that plastics have significant carbon footprints over their lifecycle. The growing concern around plastic waste has resulted in an effort to limit the production of virgin plastics through the adoption of an Extended Producer Responsibility (EPR) framework by the government that outlines the obligations that manufacturers and retailers have towards the management of their waste. Yet, progress on this front remains slow, partly due to the informal nature of the recycling industry that limits transparent data collection and integration into formal value chains.

OBJECTIVES

PROTOPRINT is a collaborative partnership that intends to transform the informal recycling sector through the gradual implementation of a systematic and self-sustaining (circular) model for waste plastic recycling. Specifically, the initiative aims to move urban waste-pickers up the recycling value chain and improve livelihoods through the implementation of low-cost technology solutions coupled with community development, creative financing and public-private partnerships that improve plastic waste processing within urban environments and promote the integration of informal waste collectors and informal waste management MSMEs into formal value chains. The project is based in the city of Pune, home to over 3 million residents.

The project seeks to set up an ecosystem that supports the development of self-managed waste-processing units that consists of waste-pickers members and use low-cost technology solutions and standardized processing techniques to convert plastic waste into plastic flakes which can be sold to end users via negotiated agreements with industrial-partners that ensure a fair wage for the individual workers. In doing so, each unit functions as a sustainable, replicable and scalable business that can eventually be leveraged to integrate its informal workers into the formal economy and to provide other benefits such as healthcare, etc. and function as sustainable, replicable and scalable business centres.

In addition to the production of flakes, the PROTOPRINT product team will work in collaboration with a sub-set of the units to further upcycle the plastic into high-value products such as fair-trade 3D printer filament and other similar consumer items with the goal that the development and sale of such products could provide even greater economic mobility



SCAN FOR MORE PROJECT
INFORMATION

to the waste-pickers. The project will work in collaboration with European entities to ensure a standardized and rigorous certification of these products for customers in both the Indian and European markets.

WAY FORWARD

- Improved wages, labor rights, formalised benefits and upward mobility for urban waste-pickers;
- Social mobility through the empowerment of vulnerable communities like migrants and women that disproportionately contribute to the waste-picker population;
- Improved plastic recycling rates resulting in less littering / land-fill disposal which in-turn results in improved environmental, climate and human health outcomes;
- Formalisation of the recycling sector allowing for more transparency and innovation leading to greater efficiencies.



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SWACH PLUS SEVA SAHAKARI SANSTHA MARYADIT
(PUNE, INDIA)

SWACH PUNE SEVA SAHAKARI SANSTHA MARYADIT
(PUNE, INDIA)



PROMISE - Prevention Of Marine Litter In The Lakshadweep Sea

INDIA, MALDIVES, SRI LANKA ● WASTE MANAGEMENT

PERIOD: 2020-2024
BUDGET: EUR 3,709,882.60 (EU contribution 80%)



CHALLENGE

Marine ecosystems continue to suffer from increasing anthropogenic pollution. As a result, marine litter has become a global concern and currently witnesses growing awareness amongst the general public. The vast majority of marine litter stems from land-based sources and enters marine ecosystems from human settlements along coastlines and river basins. In this context, tourism industries have been identified as major contributors to marine litter due to high consumption rates of fast-moving consumer goods (FMCG) and convenience products wrapped in single-use plastic packaging. In many touristic regions of the global south, this is aggravated by the absence of effective policy frameworks for

integrated solid waste management, a lack of consumer awareness and insufficient capacities of local authorities to handle the increasing amounts of solid waste and the substantial growth in tourism. Countries of the South Asian Seas (SAS) region struggle with the management of the increasing amounts of waste. There is a pressing need to curb marine pollution in the pristine ecosystems of the Lakshadweep Sea shared by Maldives, Sri Lanka and India. Low per capita income, high population densities and a high dependency on natural resources makes them highly vulnerable to the impacts of marine pollution.

OBJECTIVES

The project seeks to promote source-to-sea solutions to reduce marine littering in tourism clusters along the Lakshadweep shorelines of the Maldives, Sri Lanka and India. It focuses explicitly on MSMEs in and contributing to the tourism sector to support them in waste minimization, thus enhancing the attractiveness of tourism industries, avoiding further deterioration of marine ecosystems and improving people's living conditions.

WAY FORWARD

- Establish a knowledge base for the status quo of marine littering in tourism clusters along Lakshadweep shorelines;
- Support MSMEs from tourism clusters in the Maldives, Sri Lanka and India in implementing waste minimisation options in their business operations and overarching strategies;
- Conceptualisation and initiation of "Lakshadweep Zero Waste Alliance";
- Enable access to finance for MSMEs to implement more costly waste minimization options;
- Strengthen regional policy frameworks for waste management in coastal areas and contribute to reduced waste generation and littering in all three target countries;
- Inform wider stakeholder network about the approaches to waste prevention.



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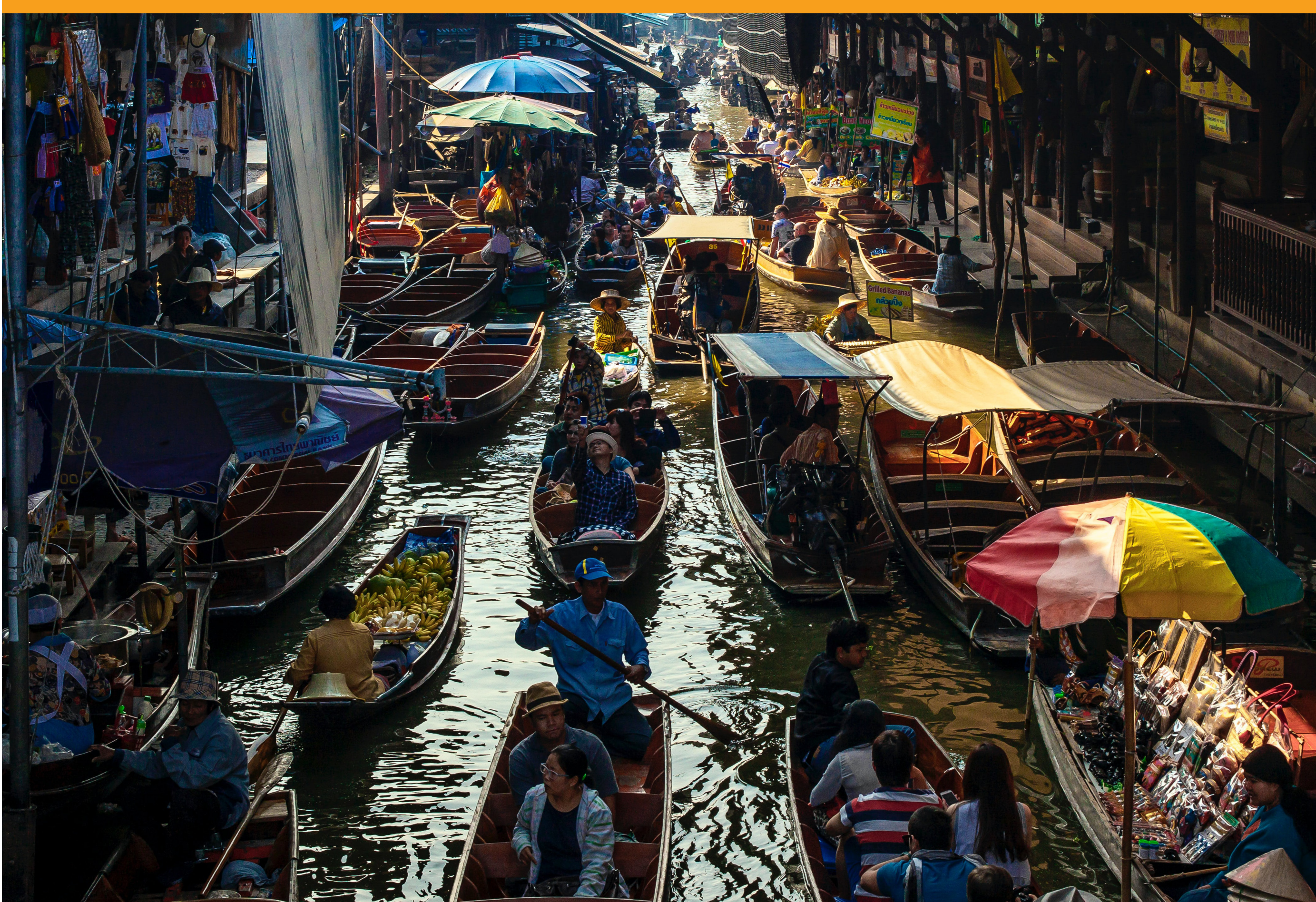
Parley for the Oceans

STENUM Asia Sustainable Development Society (STENUM Asia)

The Energy and Resources Institute (TERI)



SCAN FOR MORE PROJECT INFORMATION



Luang Prabang Handle With Care - Sustainable destination development

LAO PDR

TOURISM

IMPLEMENTATION PERIOD: 5/2016-4/2019

BUDGET: EUR 1,800,000 (EU contribution 90%)



CHALLENGE

Tourism is an important growth sector in Laos. It contributes significantly to the country's gross domestic product (GDP), about 7-9% of GDP, as well as employment generation. Unsustainable tourism causes deterioration of the environmental, social, and cultural heritage of Laos. Particularly Luang Prabang as a world heritage site is in danger and needs a more sustainable tourism.

OBJECTIVES

The project seeks to cultivate sustainable tourism products in a fragile destination. It targets an increased provision and consumption of sustainable tourism products to preserve the destination with regard to 1) assurance of private sector uptake and benefit, 2) responsible utilisation of natural resources, and 3) protection of cultural heritage, minorities and inclusive economic participation.

OUTCOMES

- Building the capacity of business membership organisations (BMOs), entrepreneurs and employees in the tourism sector and relevant government officials to develop sustainable tourism products;
- Strengthening communication concerning sustainable tourism between tourism stakeholders through public-private dialogue;
- Developing and offering new sustainable tourism products adhering to the practices of sustainable consumption and production (SCP) with the inclusion of local communities, retailers and craft producers;
- Adapting the ASEAN sustainable tourism standards, harmonising them with the national framework, and preparing certification schemes;
- Raising awareness on benefits and acceptance of adapting to sustainable tourism, and promoting sustainable Lao tourism.



”

Our project engaged an astonishingly diverse set of public and private stakeholders, ensuring that all aspects of sustainability were considered. Only such a detailed and holistic approach will ensure Luang Prabang to become a responsible, sustainable and most of all resilient destination.

Dr. Andreas Hofmann

GIZ Team Leader,
Luang Prabang Handle with Care



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Luang Prabang Travel Agent Association (LUTA)

sequa gGmbH

SUSTOUR Laos - Promoting sustainable tourism

LAO PDR

TOURISM

IMPLEMENTATION PERIOD: 2020-2024

BUDGET: EUR 2,223,857 (EU contribution 90%)



CHALLENGE

The Lao tourism value chain study conducted by ECEAT and the Dutch Government supported CBI demonstrates that growth in the tourism sector creates challenges related to sustainable consumption and production (SCP), including: environmental degradation; resource inefficiency; poor waste management; carbon emissions; income inequality; zero-dollar tourism; and social issues that arise as a result of tourism (e.g. child labour, sex tourism). Hence there is an urgent need to promote sustainable production and consumption methods in all sectors of the Lao tourist sector in a manner that utilises market incentives.

Through an integrated business-led approach, SUSTOUR Laos will mobilise and mentor Lao tour operators and hotels in Vientiane Capital, Vientiane Province and Luang Prabang Province

to adapt and promote sustainable consumption and production (SCP) practices throughout their supply chains and business processes. This includes using local suppliers, purchasing environmentally friendly products, conserving natural resources and applying socially responsible ways of interacting with local communities. Adaption of sustainable practices will be certified and awarded by the Travelife program which has been developed by the European Centre for Ecological and Agricultural Tourism (ECEAT) in partnership with EU travel associations (e.g. ABTA-UK) and recognised internationally as the leading sustainability system in the tourism industry. The project will trigger market demand for sustainable tourism by marketing Laos as a green destination and by raising consumer awareness on sustainable Lao tourism SMEs and supplier MSMEs among tourists and international travel agents. This will ultimately reward tourism SMEs and supplier MSMEs adapting sustainable practices with a

competitive advantage resulting in increased income and employment opportunities. With the Lao national Chamber of Commerce and Industry (LNCCI) as local partner, the project attempts to create an enabling policy environment and dialogue through sustainable local structures supporting SCP practices in the tourism sector.

SUSTOUR Laos builds on the SWITCH-Asia Luang Prabang Handle with Care project implemented by GIZ through scaling-up relevant SCP practices. The project will collaborate with the Greater Mekong Subregion Tourism Infra structure for Inclusive Growth Project by utilizing the National Destination Management Network to enhance policy dialogue on SCP in the tourism sector. Linkages will also be built with the Brand Lao-For Better Livelihoods project, implemented by LNCCI.

OBJECTIVES

Contribute to the Laos National Green Growth Strategy, 8th Five-Year National Socio-Economic Development Plan, and the National Tourism Strategy by promoting SCP through sustainable supply chain development in the Laos tourism sector. Specifically the project's objectives are:

- The Lao tourism supply chain is more sustainable having adopted and replicated Travelife certified SCP practices among tourism SMEs by developing greener products for local supplier MSMEs, as well as sustainable settings for host communities;
- The economic and environmental value of sustainable tourism in Laos is promoted and consumer awareness is raised creating competitive advantages and incentives for Lao tourism SMEs applying SCP practices;
- SCP in the tourism sector is advocated by leveraging existing institutions and structures in Laos as well as relevant regional networks and outbound tour operators.

WAY FORWARD

- Lao tourism MSMEs are supported to undertake the Travelife Certification process;
- Green supply chains are optimized through fulfilling Travelife requirements by developing and promoting green solutions meeting the market demand of target SMEs;
- Options for access to finance for sustainable MSMEs have been identified and promoted to tourism MSMEs;

- Tourism readiness for Communities is promoted through improved awareness of benefits, costs and their responsibilities for sustainable tourism;
- Sustainable tourism in Laos and Laos as a Green Destination is promoted among international travel businesses (international and online travel agents);
- Sustainable tourism in Laos and Laos as a Green Destination is promoted among Free and Independent (FIT) travelers;
- Government institutions, iNGOs and international companies in Laos support sustainable SMEs for their business travel;
- SCP in the tourism sector is promoted in the Destination Management Network;
- The SUSTOUR Laos approach and Travelife certification has been promoted on a regional level bridging towards replication in other Southeast Asian countries.



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SCAN FOR MORE PROJECT

INFORMATION

Zero Carbon Resorts (ZCR)

PHILIPPINES • TOURISM

IMPLEMENTATION PERIOD: 11/2009-4/2014
BUDGET: EUR 2,108,859 (EU Contribution: 80%)



CHALLENGE

The tourism industry in the Philippines is growing fast, bringing employment and strengthening the economy of the country. Tourism has, however, a high demand for energy in providing guest services, and is responsible for a large amount of CO₂ emissions. Due to the poor electricity supply infrastructure and inefficient appliances wasting, energy costs are escalating for small tourist businesses. Carbon neutral, appropriate local and environmental technology solutions are required and call for a revision of environmental policy by the regional government.

OBJECTIVES

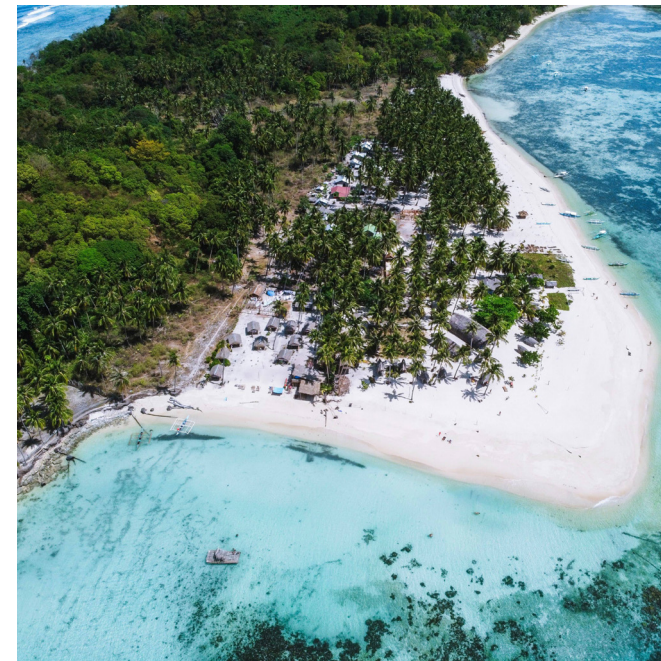
The project sought to enable small and medium-sized enterprises (SMEs) in the tourism sector, such as hotels and resorts in Palawan and other parts of the Philippines, to provide their energy services

in an efficient, cost-effective, and environmentally sound way through training courses and direct consultations with the companies. Specific objectives included:

- To reduce carbon footprints by increasing energy and resource efficiency and switching to renewable energy resources;
- To increase the availability of energy services;
- To stimulate the local economy by producing and using renewable materials and low-carbon technologies for buildings and appliances;
- To decrease dependence on fossil fuels;
- To provide local engineers with the skills and knowledge, theoretical and practical, to improve the generation and use of energy.

OUTCOMES

- Established simple measures that are easy to implement by SMEs and tourists in order to improve energy performance;
- Investing the savings gained from the reduce strategy to substitute outdated and inefficient appliances with green and efficient technologies has been promoted.
- A new design of a zero carbon resort (flagship cottage) embracing sustainable buildings and energy services based on renewable resources;
- Trained local engineers, builders, designers, and SMEs;
- Embedded results from the 3R approach (reduce, replace, redesign) in regional law and disseminating them for replication in other regions.



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The ZCR Project was a catalyst for sustainable development and innovation through the tourism sector. There is no need to wait for a big, global change to suddenly happen; every individual action matters and will make a difference.

Dr. Robert Wimmer
Project Lead
ZCR for Sustainable Tourism
Executive Director - GrAT

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LEAD PARTNER

Center for Appropriate Technology (GrAT)

PARTNERS

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Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT)
Plataforma Solar de Almería, Spain
Palawan Council for Sustainable Development (PCSD), Philippines



SCAN FOR MORE PROJECT
INFORMATION



TOURLINK - Moving Thai tourism towards sustainability through a business-led supply chain approach

📍 THAILAND ● TOURISM

IMPLEMENTATION PERIOD: 2020-2023
BUDGET: EUR 1,800,000 (EU contribution 80%)



CHALLENGE

Rapid growth of the Thai travel sector over the last decade has led to environmental and social challenges. TOURLINK aims to support the Thai travel sector to become more sustainable by providing capacity building training to tour operators and their suppliers (hotels, transport companies, activity providers), common standards and an international certification facilitating market benefits and international recognition of Thailand as a leading sustainable tourism destination.

By transforming comprehensive supply chains, a wide range of MSMEs in the tourism sector will

be targeted covering several Thai SCP priorities including food processing and waste management. As a subtheme, the project will develop and implement standards and guidelines to avoid food waste and use and improper disposal of plastics among tourism MSMEs and local communities. As part of the consumer awareness activities, visibility of the project will be reached among a wide audience of stakeholders.

OBJECTIVES

The main project objective is to promote inclusive sustainable growth, to contribute to the economic prosperity and poverty reduction in Thailand, the development of a green economy and the

transition towards a low-carbon, resource-efficient and circular economy. Specific objectives include:

- Adopt sustainable production and consumption (SCP) practices among MSMEs promoting less polluting and more resource efficient products, processes and services in the Thai tourism sector;
- Replicate previously demonstrated SCP practices throughout the supply chain of tourism MSMEs in a business-led approach and increasing access to green financing;
- Promote SCP practices in the tourism sector at national scale;
- Increase awareness on SCP in the tourism sector, distilling knowledge from the project for replication in the Asian region;
- Promote the economic value of SCP in the tourism sector interaction between MSMEs and finance institutions is facilitated;
- Address sustainable supply chain management and facilitate the integration of MSMEs into the tourism supply chain through sustainability reporting, labelling and certification;
- Support sustainable consumption and consumer awareness on SCP specifically for tourists and international tourism agencies in Thailand;
- Support existing regional fora (e.g. ASEAN, Pacific Asia Travel Association, Asian Ecotourism Network) on tourism and SCP enhancing policy dialogue in Asia.

WAY FORWARD

- The Thai tourism sector has implemented supply chain methodologies which have moved MSME's towards adaptation and replication of SCP practices, greener products creating competitive advantages;
- Sustainable Tourism is promoted in communities and consumer awareness on sustainability choices in Thailand has increased.



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LEAD PARTNER

European Centre for Eco and Agro Tourism (ECEAT)

PARTNERS

Designated Areas for Sustainable Tourism Administration (DASTA)
Pacific Asia Travel Association (PATA)
Sasin Sustainability & Entrepreneurship Center (SEC)
Thai Eco and Adventure Travel Association (TEATA)
Thai Hotel Association (THA)



SCAN FOR MORE PROJECT
INFORMATION

Zero Carbon Resorts (ZCR) 2.0

PHILIPPINES, THAILAND

TOURISM

IMPLEMENTATION PERIOD: 5/2014-8/2018

BUDGET: EUR 2,286,283 (EU Contribution: 80%)



CHALLENGE

Tourism in the Philippines and in Thailand is receiving increasing attention as an excellent sustainable development option. Nevertheless, with the vulnerability of developing countries to climate change, one cannot neglect the negative impact that the tourism industry has on the environment. The tourism sector has a large potential to foster inclusive development, but only if operations run sustainably – preserving the environment, boosting the local economy and generating income along the whole value chain.

OBJECTIVES

“Zero Carbon Resorts 2.0” contributed to the sustainable development of the tourism sector and its value chain in the Philippines and in Thailand, with a focus on reduction of resource consumption and CO₂ emissions. It targeted a

critical mass of SMEs, demonstrating the value of green tourism by increasing resource efficiency and using renewable resources. Specific project objectives included:

- Enabling SMEs in the tourism industry in the Philippines to become a SCP model for the tourism sector through certified Zero Carbon practices, as well as expose Thailand to efficient innovative technologies;
- Providing incentives and access to finance in both countries;
- Establishing a new generation of ZCR members in Thailand and in at least 5 additional locations in the Philippines;
- Developing a Philippine Green Hotel certification scheme based on the Thai Green Leaf standard and the ZCR principles;
- Empowering SMEs in the tourism sector by

using a proven methodology to continuously improve energy efficiency and to become a model for replication in countries with similar climate conditions.

OUTCOMES

Philippines

- The number of ZCR beneficiaries increased to more than 1000 hotels and resorts in the Philippines (initially there were 870 members);
- The ZCR Learning Centre attracted 1,400 visitors since its opening to the public;
- Reduced carbon emission of 340 companies, amounting to a total saved emission of 23.7 kt of CO₂. Energy, water and other resources from the implementation of the ZCR members accumulated savings from 1% up to 70% using the indicator (kWh/guest-night);
- The ANAHAW – Philippine Sustainable Tourism Certification was successfully launched and recognised with 27 pioneer awardees (2018 – 2020);
- 15 ANAHAW Experts received professional training;
- Contributed to the integration and mainstreaming of ZCR principles into policies (integration in Palawan’s SEP clearance, creation of the policy white book and local green building code);
- Organised 5 technical seminars all over Palawan and reached 198 policy makers, LGU and technical staff;
- Reached 592,424 web visitors through the ZCR website.

Thailand

- 311 registered ZCR member hotels, resorts and restaurants joined the ZCR community;
- Capacities of 227 hotel engineers, housekeepers and chefs were strengthened on sustainable practices in the tourism industry through capacity building training programmes;
- Organised and conducted ZCR exchange visit in Thailand and impacted 26 tourism stakeholders in Lanta, Krabi and Bangkok;
- Strengthened the relationship with the central and local governing units and tourism associations in Thailand;
- Reduced carbon emission of 70 companies, amounting to a total saved emission of 8.20 ktCO₂.



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CONTACT

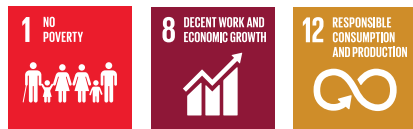
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Gruppe Angepasste Technologie (GrAT)

PARTNERS

Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT)
EMCA
Green Leaf Foundation
Healthy Public Policy Foundation (HPPF)



SHINE - Sustainable Hospitality Industry Inclusive of Native Entrepreneurs

📍 BHUTAN

● TOURISM

IMPLEMENTATION PERIOD: 2020-2023
BUDGET: EUR 2,075,965 (EU contribution 90%)



CHALLENGE

Bhutan has a thriving tourism industry with a significant increase in arrivals. The tourism sector is one of the largest employers and second highest revenue contributor in the country. However, the tourism activities and income are largely concentrated in the three most popular destinations in the west. Thimphu, Paro and Punakha held more than 75% of the total visits, while the six eastern provinces - Lhuentse, Monggar, Pemagatshel, Samdrup Jongkhar, Trashigang and Trashy Yangtse – altogether received less than 4% of the tourist in 2018. While the touristic hotspots become overcrowded and reach their carrying capacity, rural districts hardly benefit from the tourism income. The tourism industry heavily relies on imported resources to meet the overwhelming

guest demands, whereas poverty in rural areas remains almost 10 times higher compared to urban areas. Young workers leave their home to find jobs in Thimphu, Paro and Phuentsholing, thus labour shortage in the hinterland occurs and many suffer from social dislocation and lack of belongingness. Livelihood of people in rural areas is mostly dependent on subsistence agriculture, and irresponsible harvesting of timber and non-wood forest products (NWFP) partially leads to overexploitation of natural resources. These informal groups/producers need to be brought into the tourism value chain and the MSMEs need support to enhance the production capacity and service quality. The substantial potential for tourism in the east and the south regions - exceptional landscapes, unique natural assets, rich cultural heritage and a diversity of ethnic minorities - is yet to be explored.

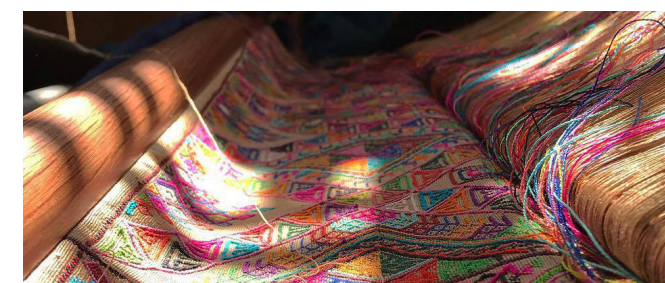
OBJECTIVES

The action focuses on mitigating the imbalance between the touristic hotspots and the marginalized rural districts, by supporting the producers of agro-products and handicrafts as well as homestays to make use of their unique environmental, cultural and ethnic properties and stories to create added values for the visitors, who seek for authentic experiences in Bhutan. The action provides the beneficiary groups with technical assistance and support for innovation - better design, higher quality, Appropriate Technology, energy efficiency, eco-friendly materials, re-discovery of traditional knowledge and skills, waste management, etc. Tourism products and services will be diversified and quality will improve. The action also facilitates direct supply of food products and souvenirs from the east to the west, in order to increase and sustain the resilience of the tourism industry.

The project develops inclusive and sustainable tourism models especially in the marginalized eastern/southern part of Bhutan, by engaging native self-help groups in the supply chain of goods and services for the growing tourism industry in the west and by showcasing region-/community-based ecological tourism models. Thereby the action contributes to a low-carbon, resource-efficient and circular economy, and to generating income opportunities for the rural communities and MSMEs.

WAY FORWARD

- Rural tourism products are diversified and visitors to the rural areas of Bhutan increased;
- Uptake of local food products and indigenous handicrafts in the tourism sector increased;
- Production volume and quality of food and handicrafts improved through efficient resource management, better processing and appropriate technology (AT) solutions;
- 20 new products developed that meet the market demand (handicraft, food products, homestays, tourism packages);
- A model village established as a learning center for SCP practices;
- Replication of best practices through finance programs and policy dialogue, ensuring sustainability of the results.



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www.grat.at/projects/shine-sustainable-hospitality-industry-inclusive-of-native-entrepreneurs-2

LEAD PARTNER

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PARTNERS

Bhutan Association of Women Entrepreneurs (BAOWE)

Handicraft Association of Bhutan (HAB)

STENUM Asia Sustainable Development Society (STENUM Asia)



SCAN FOR MORE PROJECT INFORMATION

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

BHUTAN

TOURISM

IMPLEMENTATION PERIOD: 2020-2023

BUDGET: EUR 1,302,895 (EU contribution 90%)



CHALLENGE

The tourism sector is a priority of Bhutan’s 12th Five Year Plan (2018-2023). A sustainable tourism sector is strongly dependent on behaviour and operations of actors in the destinations visited as well as tour operators from visitors’ countries. Products and services from sectors such as transport, agri-food processing, energy, waste management and trade need to be available for the tourism sector to function sustainably.

The project works in three pilot destinations in partnership with local tourism development committees to green the local suppliers and to foster sustainable destination management. A wide range of MSMEs in the tourism sector

is targeted, covering several Bhutanese SCP priorities including energy efficiency and waste management. The project works at all levels of the value chain with the Bhutanese tour operators as the central actors. They will be the prime focus of capacity building and implementation. This is in line with the Bhutanese policy that all dollar-paying visitors have to be routed through local tour operators. More than 500 suppliers of tour operators are trained and supported to implement and comply to relevant standards. A pilot destination approach allows for optimizing and the replicating approaches. A Green Financing Scheme supports businesses in taking up these practices. The project forges partnerships with EU and Asia travel associations and tour operators. It also supports the development of a supportive

policy environment and the integration the developed standards into Bhutan and South Asian policies. Further, the project promotes child rights, gender awareness and waste management (e.g. plastics) among tourism MSMEs and local communities.

OBJECTIVES

The project promotes sustainable destination management using a business-led approach, working closely with tourism MSMEs, consumers and host communities as well as policy stakeholders and enablers. More specifically:

- It supports the capacity of Bhutan travel associations to provide relevant and effective services;
- Bhutan-specific standards, tools, trainings and local SCP support capacity are built so that stakeholders can engage with producers, retailers and consumers;
- Bhutan tour operators are enabled to work with their suppliers in a proven sustainable supply chain approach.

WAY FORWARD

- Higher capacity of Bhutan travel associations to provide relevant and effective services for improved SCP practices.
- Bhutan tour operators committed and able to work with their suppliers in a proven sustainable supply chain approach.
- Suppliers of tour operators are trained and supported to implement and comply to relevant standards.
- Strengthening linkages with other sectors, following a (pilot) destination approach in three regions.
- Establishing an enabling financial environment by creating a Green Financing Scheme.
- Integrating sustainable consumption practices of proven sustainable suppliers and tour operators into the South Asia-EU value chain in close partnership with EU travel associations and tour operators.
- Supporting the development of a supportive policy environment and integration the developed standards into Bhutan and South Asian policies and sharing experiences with other South Asian countries.



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PARTNERS

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European Centre for Eco and Agro Tourism (ECEAT)
Hotel and Restaurant Association of Bhutan (HRAB)



SCAN FOR MORE PROJECT
INFORMATION

Sustainable Tourism in Bhutan

BHUTAN

TOURISM

IMPLEMENTATION PERIOD: 1/2012-6/2015

BUDGET: EUR 1,205,654.60 (EU contribution: 90%)



CHALLENGE

The tourism industry in Bhutan is the second largest revenue earner and the highest foreign exchange earner. Its sustainability, however, depends on its greater participation and responsible business practices. In a bid to maximise profits, tourism beneficiaries have increased their consumption, thus intensifying the negative impacts from tourism. It is crucial to infuse responsible practices and low carbon tourism products to sustain the benefit of tourism. This requires partnership and cooperation within the tourism industry, and between the industry, government, tourists and local people. The main hurdle is a lack of awareness of the overall impacts of tourism sector and the behavioural changes required to stimulate responsible practices. The lack of crucial data, tools and know-ledge on green practices and the absence of benchmarks are identified barriers to encourage behaviour change and responsible tourism.

OBJECTIVES

The project sought to contribute to economic prosperity, poverty reduction and climate change mitigation in Bhutan by promoting sustainable tourism development through the encouragement of sustainable production and consumption (SCP) practices across the tourism value chain of Bhutan coupled with sustainable livelihood development.

OUTCOMES

- Environmental impact statement (EIS) database created after a comprehensive environmental baseline survey covering 160 tour operators, 221 guides, 134 hotels, 41 restaurants, 45 shops, 4 campsites and eco-lodges surveyed covering major tourist regions of the country;
- Sector reports to facilitate strategic decision making and planning now can be generated using the EIS. A carbon calculator specific and relevant to Bhutan is developed to measure carbon footprint for tourism products and individuals;
- More than 30 Champion members were identified as drivers of change, where companies received special training and one-to-one technical support;
- All sectors and entities wishing to acquire a carbon label and support are subject to calculate the carbon footprint of their products and services using the carbon calculator. The entities acquiring carbon label will be included in the Low Carbon products and services, receiving promotional benefits and low carbon branding;
- 20 low carbon products and services developed and launched at a major international tourism fair (ITB). Even by initial conservative survey of just 3 of the 20 products, the sale has already surpassed the project target of 5,000 units to be sold by end of project.

”

Persuading stakeholders to invest for a greener future was difficult, nevertheless, crucial steps to facilitate green initiatives and promote SCP in the tourism industry have been taken and are showing results.

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SCAN FOR MORE PROJECT

INFORMATION



PARYA Sampada - Sustainable tourism and green growth for heritage settlements of Kathmandu Valley

NEPAL

TOURISM

IMPLEMENTATION PERIOD: 2/2018-1/2022
BUDGET: EUR 2,181,560 (EU contribution 80%)



CHALLENGE

Kathmandu Valley has been experiencing unprecedented urban growth in the past several decades. This has greatly threatened traditional settlements. The devastating earthquake of 2015 has further caused extensive damage. This project has been designed to revitalise the settlements in the Kathmandu Valley, more specifically those of Bungamati and Pilachhen in Lalitpur Metropolitan City, through heritage conservation, green growth and creating livelihood opportunities through the tourism industry.

OBJECTIVES

The overall objective of this project is to promote Sustainable Tourism and Green Growth in Heritage Settlements of Kathmandu Valley. More specifically, the project aims to promote sustainable consumption and production (SCP) with heritage tourism sector stakeholders through demonstration in the Bungamati and policy advice, dialogue and advocacy at Kathmandu Valley level. It also aims to develop and implement in Bungamati and Pilachhen, tools for green growth with a focus on sustainable rebuilding, entrepreneurship among women and youth, SME engagement and investment, product innovation and sector campaigns.

WAY FORWARD

- Heritage Settlement Recovery Plan of Bungamati;
- Private Building Reconstruction;
- Public Building Infrastructure Development;
- Enhancement of Bungamati Museum;
- Heritage Recovery Plan of 10 other settlements;
- Capacity Enhancement of Local Technician in Traditional Brick Masonry Structure;
- Capacity Building of Stakeholders on Green Growth and Tourism in Heritage Settlements;
- Entrepreneur Development of Local Youth and Women.



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SCAN FOR MORE PROJECT INFORMATION

Greening Sri Lankan Hotels

SRI LANKA

TOURISM

IMPLEMENTATION PERIOD: 11/2009-11/2013

BUDGET: EUR 1,829,828 (EU contribution: 80%)



CHALLENGE

Exporting cars to international markets requires the industry to also adopt international standards. In Sri Lanka, the hospitality sector ranks as one of the most energy intensive sectors and has a high-energy cost. Similarly, the use of water and other natural resources, and the generation of waste, are all high. Becoming resource-efficient, while meeting the diverse requirements of customers, is a challenging task for hotels, resorts and tour operators.

OBJECTIVES

The project sought to enhance the environmental performance of Sri Lankan hotels and to increase their market acceptance by promoting them as low carbon footprint green hotels and by improving energy, water and waste management systems and reducing operation costs.

OUTCOMES

- The project has been promoted among target groups, stakeholders and selected SMEs;
- Baseline surveys and baseline setting;
- Advisory services, support and training for hotels in natural resource management and implementation of resource efficiency measures were delivered;
- Resource Management Circles, monitoring the progress and dissemination of success stories were set up;
- Suppliers of hotels and customers have been engaged to improve the enabling environment;
- Recognition awards, a local sustainable tourism forum and participation in international sustainable tourism forums has been organised;
- The greening of Sri Lanka hotels has been promoted in international markets.

”

After the project team visited our hotel we were able to implement ‘greener’ measures across 80% of our operations. The project gave us many ideas to apply to our operations and is helping us make changes without reducing the quality of our services. I have already seen some behavioural and attitude changes among our staff.

Marius Perera

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Sri Lanka Sustainable Energy Authority

The Travel Foundation, UK



SCAN FOR MORE PROJECT

INFORMATION

Sri Lankan Renewable Energy

📍 SRI LANKA

● TOURISM

IMPLEMENTATION PERIOD: 1/2014-12/2016
BUDGET: EUR 831,931.42 (EU contribution: 80%)



CHALLENGE

The Sri Lankan tourism industry is booming with number of tourists increasing every year. Hotel and restaurant facilities need to deal with increasing amount of waste and growing energy costs. Biogas production is a sustainable win-win solution to manage their waste while contributing to their energy needs and reducing energy costs. However, development of biogas technology requires strong technical capacity of biogas units' constructors. The lack of after-sale service and maintenance of biogas units as well as lack of SME appropriate entrepreneurial capacities has hampered sustainability of past projects.

OBJECTIVES

The project aims to create an enabling environment for a largescale dissemination of biogas technology for SMEs in tourism industry and households. To achieve it, the project targets the demand side as well as the supply side by mobilising the manufacture and construction private sector, micro finance institutions (MFIs), tourism industry and the society as a whole.

OUTCOMES

- Conducting awareness workshops to promote the biogas technology;
- Providing capacity building to SMEs in construction and manufacturing sector;
- Designing and developing of accreditation scheme for masons and designers of biogas units;
- Developing a quality insurance and after sale services for biogas unit maintenance;
- Facilitating access to micro finance institutions (MFIs) and to "green" finance for SMEs;
- Linking MFIs with SMEs to broaden and facilitate investment possibilities;
- Strengthening the institutional framework by establishing an umbrella institution the Sri Lanka National Biogas Program (SLNBP).

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SCAN FOR MORE PROJECT
INFORMATION



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

📍 KAZAKHSTAN

● TOURISM

IMPLEMENTATION PERIOD: 2020-2023
BUDGET: EUR 1,545,547 (EU contribution 80%)



CHALLENGE

The main needs and constraints that the Tourism Sector in Kazakhstan is facing right now are: the absence of quality and sustainability standards; poorly planned facilities; climate change devastating consequences on Kazakhstani natural resources; inadequate skilled human resources to manage the sector; the government budget to Tourism Sector is still low and opportunities for interaction with the private sector are scarce; limited understanding of Tourism Sector by financial institutions; and, insufficient destination marketing and promotion. If these challenges are not immediately addressed, the development and growth of the sector could result in the endangerment of natural resources of the country, one of its main tourist attractions.

OBJECTIVES

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. The specific objectives include:

- Better equip MSMEs to seize opportunities for green business development;
- Promote green consumption and better informed public and private consumers;
- Advocate for clearer and more efficient SCP policies;
- Make green financing more accessible to MSMEs.

WAY FORWARD

- Improved sustainability and resource efficiency in 50 MSMEs of the Tourist Accommodation Sector in Kazakhstan;
- Promote green commercialisation and consumption by implementing Travelife sustainability certification system in the MSMEs of the Tourism Sector (Accommodations and Tour Operators) of Kazakhstan;
- Increased awareness and commitment of governmental institutions and financing bodies in SCP practices and Sustainable Tourism benefits;
- Creation of a panel of experts on SCP practices, sustainability schemes and marketing strategies to foster the continuation of these practices once the action is finished.



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SCAN FOR MORE PROJECT INFORMATION



MOST - A Model for Sustainable Tourism in Central Asia

📍 KAZAKHSTAN, TAJIKISTAN, UZBEKISTAN

● TOURISM

IMPLEMENTATION PERIOD: 2020-2022
BUDGET: EUR 2,009,909 (EU contribution 80%)



CHALLENGE

The former Soviet Asian States present considerable opportunities to become a major tourist destination in the way of unique cultural, historical, archaeological, and natural attractions. Uzbekistan, Kazakhstan and Tajikistan have strategically utilised tourism for driving economic growth. However, the sector faces a lot of problems and challenges. The most important are the lack of supply chain and logistics facilities, underdeveloped infrastructure and low standard services for tourists. In some of the countries the visa regime and the high prices are also considered as inhibitory factors. Given the tourism sector in these countries is still under-developed but with very high potential, the setting of a sustainable tourism model is very crucial. Sustainable

tourism has the potential to support growing local economies, by respecting communities and protecting cultural and heritage sites from risks of overcrowding and from damage caused by natural disasters. Destinations that are becoming increasingly popular today, as is the case in Central Asia, have the opportunity to sustainably develop their tourism sectors and become role models for other countries around the world.

OBJECTIVES

Promotes sustainable tourism in Uzbekistan, Kazakhstan and Tajikistan through implementation of ISO standards related to green procurement and eco-labeling. 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.

The specific objectives include:

- Supporting tourism companies mainly in Uzbekistan, but also in Tajikistan and Kazakhstan to adopt (SCP) practices by providing appropriate knowledge and ICT tools;
- Supporting regional and local authorities to plan and implement policies that assist the development of sustainable tourism;
- Raising awareness regarding sustainable tourism and consumer awareness about sustainable consumption;
- Strengthening the dialogue between authorities, SMEs and end users for further promoting responsible consumption and production.

WAY FORWARD

- 380 tourism MSMEs trained on the use of tools and SCP methodologies and standards (GSTC criteria, Travelife and relevant standards, and green procurement);
- 440 tourism MSMEs in Uzbekistan, Tajikistan and Kazakhstan equipped with the appropriate ICT tools and knowledge for adoption of SCP practices;
- At least 50 tourism MSMEs trained on marketing tools;
- Dialogue between state actors and business sector for sustainable tourism strengthened;
- Recommendations formulated for the adoption of sustainable tourism in Uzbekistan, Tajikistan and Kazakhstan.
- Local and regional authorities supported in policy planning and linking it to investment and other support instruments;
- Awareness about the sustainable usage of water and energy raised;
- Access of MSMEs to finance promoted;
- Role of local and regional authorities in sustainable tourism strengthened;
- SCP practices adopted in the tourism sector.

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Tajik Association for Promotion of Tourism Development (TATO)



SCAN FOR MORE PROJECT INFORMATION



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

📍 KYRGYZSTAN

● TOURISM

IMPLEMENTATION PERIOD: 2020-2023
BUDGET: EUR 1,687,839 (EU contribution 80%)



CHALLENGE

The tourism sector in Kyrgyzstan faces numerous challenges, including the lack of supply chain and logistics facilities, poorly developed infrastructures, low standard services for tourists, among others. GREENTOUR responds to the objectives of the Kyrgyz government to advance a greener and more sustainable tourism in Kyrgyzstan, involving communities, and diversifying tourism products in order to attract new target groups and clients. While the term “sustainable tourism” is still not widely known and used in the region, terms such as “nature tourism”, “responsible tourism”, and “green tourism” are increasingly being used,

indicating the growing awareness of the need to switch to tourism models that will have less negative impacts on the environment, natural resources and local communities’ livelihoods.

OBJECTIVES

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. The specific objectives include:

- Improve capacity of travel associations to provide CSR advisory services;
- Integrate SCP practices, green services and products within tour operators supply chain;
- Support 20+ MSMEs to access green finance;
- Integrate SCP principles in Kyrgyz and Central Asian Policies.

WAY FORWARD

- Improved capacity of travel associations to provide CSR advisory services;
- Kyrgyzstan tour operators and supply chain integrate SCP practices;
- Green financing scheme created to support more than 20 MSMEs;
- Increased number of green services and products enter the supply chain;
- SCP mainstreamed in Kyrgyz and Central Asian policies.



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SCAN FOR MORE PROJECT
INFORMATION



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

📍 KYRGYZSTAN

● TOURISM

IMPLEMENTATION PERIOD: 2020-2023
BUDGET: EUR 2,832,155 (EU contribution 80%)



CHALLENGE

In an attempt to shift the development of the tourism sector to a more sustainable path, the Kyrgyz Government has decided to include tourism as a priority sector in the National Programme for the Development of the Green Economy 2019-2023. This programme recognises the importance of tourism and includes environmental protection as a principal strategic direction. For businesses in the tourism sector, these general policies are unlikely to effect changes in their energy and resource use practices. The root cause for this is the often inconsistent and incoherent environmental legislation, which lacks provisions for SCP and, combined with limited enforcement, encourages wasteful practices. In the regional context, despite its small size, Kyrgyzstan is only second

to Kazakhstan in attracting foreign visitors (6.95 million in 2018). The country has several specific assets that make it a preferred destination, against its larger neighbours. Nevertheless, pollution is an emerging concern and, with growing numbers of tourists expected to visit the country, the problem is likely to become even more substantial. According to a recent survey, 25% of tourism companies perceive the touristic sites where they operate as polluted. Unless addressed, pollution at tourism sites, compounded by wasteful practices of tourism businesses, threatens the country's opportunities to secure an ever-steady influx of nature-loving visitors.

OBJECTIVES

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.

The specific objectives include:

- Raise the awareness of consumers and SMEs in the tourism sector about SCP and ERE practices;
- Build capacity and technical readiness of tourism SMEs to adopt SCP and ERE measures;
- Develop new green financing products tailored to the needs of SMEs in the tourism sector;
- Facilitate and advance the national policy dialogue and policy formulation on SCP and ERE implementation;
- Promote industry commitments geared towards achieving the country's Green Economy goals by facilitating the development of voluntary ERE certification targeted at tourism SMEs.

WAY FORWARD

- Increased awareness of the importance of SCP practices and ERE measures;
- Increased local capacity among tourism SMEs to implement SCP and ERE;
- Increased access to green finance for tourism SMEs to adopt SCP/ERE measures;
- Increased awareness among company executives, consumers (travelers, citizens), local media, and educational institutions about the importance of SCP and ERE;
- An improved policy enabling environment that favours the inclusion of SCP and ERE in the national policies formulation and implementation.



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SCAN FOR MORE PROJECT
INFORMATION



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

📍 KYRGYZSTAN, TAJIKISTAN, UZBEKISTAN

● TOURISM

IMPLEMENTATION PERIOD: 2020-2022
BUDGET: EUR 2,699,863 (EU contribution 80%)



CHALLENGE

Countries in Central Asia are among the most vulnerable globally to the effects of climate change, while also being among the least resilient. The overuse of natural resources exacerbates the risk of natural disasters, conflicts, and rural poverty. Meanwhile, a United Nations World Tourism Organisation (UNWTO) study found that greenhouse gas emissions from tourism already contributed 5% of global emissions, with transport generating 75%. In the absence of real awareness of SCP practices, and an enabling environment for the development of a strong Energy Efficiency (EE) and Renewable Energy (RE) sector, rapid tourism development seriously threatens to further increase greenhouse gas emissions and

carbon footprint, and further degrade the natural environment in Central Asia.

OBJECTIVES

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. The specific objectives include:

- Promote the adoption of SCP practices by MSMEs in the CBT sector through linkage with producers in the EE/RE sectors, as well as financial intermediaries;
- Enhance policy dialogue among actors in the sector to create a more enabling environment for EE/RE development;
- Promote sustainable CBT initiatives at the national, regional and international levels and increase consumer awareness of sustainable tourism in Central Asia.

WAY FORWARD

- SCP practices and behaviours are adopted by EE/RE producers and CBT consumers;
- Policy dialogue is enhanced among actors in the EE/RE sector;
- Sustainable Community-Based Tourism (CBT) initiatives are promoted and consumer awareness is increase.



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SCAN FOR MORE PROJECT INFORMATION



Reducing Plastic Bag Waste

CAMBODIA ● PLASTICS

PERIOD: 3/2014-2/2017
BUDGET: EUR 1,341,033.46 (EU contribution 90%)



CHALLENGE

Plastic bags are non-biodegradable and harmful to human health and to the environment. However, despite the environmental damage, highly visible throughout Cambodia, plastic bags remain popular due to their convenience: they are waterproof, lightweight, disposable, and affordable. As a result, they are used in Cambodia in a wide range of situations and sectors, from transporting solids and liquids, to direct consumption, to storing and packaging.

OBJECTIVES

The project promotes sustainable growth and environmental sustainability in the country by changing consumption patterns and consumer behaviours to reduce plastic bag use and waste in major Cambodian cities.

OUTCOMES

- Conducting market research prior to the making of action plan for media and interpersonal communication campaign;
- Introducing incentive schemes for consumers. This activity will take place in supermarkets and markets in the three cities, within those entities that have signed Voluntary Codes of Practice (VCP);
- Drafting of guidelines for the design of alternative packaging products and systems;
- Conception of alternative packaging products;
- Training of local SMEs involved in the production of alternative packaging;
- Creation and strengthening of early adopters' groups of SMEs;
- Introducing incentives for vendors/SMEs;
- Drafting of guidelines to support the implementation of the prospective national law.



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SCAN FOR MORE PROJECT
INFORMATION



Sustainable Plastic Recycling in Mongolia

📍 MONGOLIA • PLASTICS

PERIOD: 2020-2024

BUDGET: EUR 1,993,334.94 (EU contribution 80%)



CHALLENGE

Waste management is a key issue in Mongolia due to urbanization, industrialization and increasing consumption of plastic-packaged products. Plastic waste is a particularly serious issue as it is causing widespread pollution and is also often dumped illegally, both by citizens and companies. A new Law on Waste was issued in 2017 but sustainable solutions have yet to be found and implemented. The grant project is in line with the national Waste Management Strategy and Action Plan, which highlights the necessity of ensuring sound management of solid waste, promoting conservation and efficient use of resources, striving for environmentally-sound technologies and approaches, driving behavioural change of the public towards the adoption of the 3R principles, and raising social responsibility of citizens and businesses, among others.

More than a half of Mongolia's population lives in the capital city of Ulaanbaatar. The city has no proper waste management system for plastic

waste (collection, sorting, transport, standards) and no effective recycling processes. The project will establish an effective waste management system for plastic waste and will support the development of plastic recycling industry.

Bulgan Aimag (Province) is the first province with a relatively well-functioning waste management system, high number of recycling bins and regular awareness-raising activities for the public. The project will support the local recycling industry and assist the province to disseminate good practices.

Khishig-Undur Soum has no waste management system, no recycling processes and has one of the biggest landfills in the province; yet, it is striving to become the first zero-waste soum in Mongolia. The project will assist in establishing a waste management system in the soum and support the local plastic recycling industry.

The project will complement the European Bank for Reconstruction and Development (EBRD)'s

support for Mongolian Economic Diversification through the SME Access to Finance programme by providing support to recycling-MSMEs in this area. Moreover, it will also support the ongoing project of EBRD on hazardous waste and the construction of 1 landfill in Ulaanbaatar, Improving Solid Waste Management project of the Asia Foundation, the Municipal Waste Collection and Transportation Management in Ulaanbaatar (WCTM) implemented by Swiss Development Agency, GSP+ Programme, the Food Waste Project of ADB and other smaller projects in Ulaanbaatar (e.g. installation of waste separating bins in several districts). The project team will maintain ongoing communication with the implementers of these projects to achieve synergies and avoid duplication.

OBJECTIVES

The project supports the development of a green economy and the transition towards a low-carbon, resource-efficient and circular economy in Mongolia. It promotes sustainable production (development of less polluting and more resource-efficient products, processes and services) and sustainable consumption patterns and behaviour through raising awareness of the principles of 3Rs (reduce, reuse, recycle). Specific objectives include:

- Support MSMEs in adopting SCP practices;
- Provide conditions for the replication of the tools provided and increase access by MSMEs to finance;
- Create an enabling environment to strengthen the implementation of national SCP policies and assist stakeholders in harvesting the benefits of SCP;
- Facilitatesustainable supply chain management with regard to plastic waste materials;
- Raise consumer awareness of SCP, through working with communities, CSOs, youth and public sector representatives.

WAY FORWARD

- Recycling MSMEs have a better access to plastic waste through efficient plastic waste collection, sorting and classification system on 3 different levels (Ulaanbaatar, Bulgan Aimag and Khishig-Undur Soum);
- Plastic recycling MSMEs (among them women-led MSMEs) have access to appropriate advanced equipment and technologies;
- Plastic recycling MSMEs have increased the number of their customers;
- Conditions for scale-up and replication of the project package tool are in place (gender mainstreaming).



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SCAN FOR MORE PROJECT
INFORMATION



Sustainable Freight and Logistics

CAMBODIA, LAO PDR, MYANMAR, THAILAND, VIETNAM

TRANSPORT AND LOGISTICS

IMPLEMENTATION PERIOD: 2/2016-1/2019
 BUDGET: EUR 2,400,000(EU contribution 90%)



CHALLENGE

Trucking is the dominant form of freight transport in the Greater Mekong Subregion/ GMS (approx. 80% of all tonnage), but efficiency remains a challenge. About 25% to 50% of all trips run empty, and the average fleet is over 10 years old (and much older in some countries). The upcoming ASEAN Economic Community single market in 2016 will lead to a significant increase of cross-border trade in goods and services. For countries like Cambodia, Lao PDR and Myanmar, this will open up opportunities for the freight and logistics sector to grow, at the same time SMEs in these countries will face high competition.

OBJECTIVES

The project aims at increasing sustainable freight transport and logistics in the Mekong Region mainly through energy efficiency and safety measures in at least 500 SMEs in Cambodia, Lao PDR, Myanmar, Vietnam (CLMV) and Thailand.

OUTCOMES

- Increasing fuel efficiency and reducing emission mainly through defensive and eco-driving, technology changes and maintenance, freight brokerage, logistics synergies, and improved financial management of SMEs;
- Promoting safe transport for dangerous goods by implementing the existing ASEAN and GMS protocols based on the EU – Alternative Dispute Resolution (EU-ADR);
- Increasing access to finance to invest in more efficient, environmentally sound and safer technologies;
- Providing policy support and implementing customer awareness measures, such as standard and labelling, economic incentives, regulations and modal shift initiatives with the latter focusing on Thailand and Vietnam.



Our fuel data analysis of participating SMEs shows that 10 to 28% of fuel was saved by Eco driving.

Ms. Wilasinee Poonuchaphai
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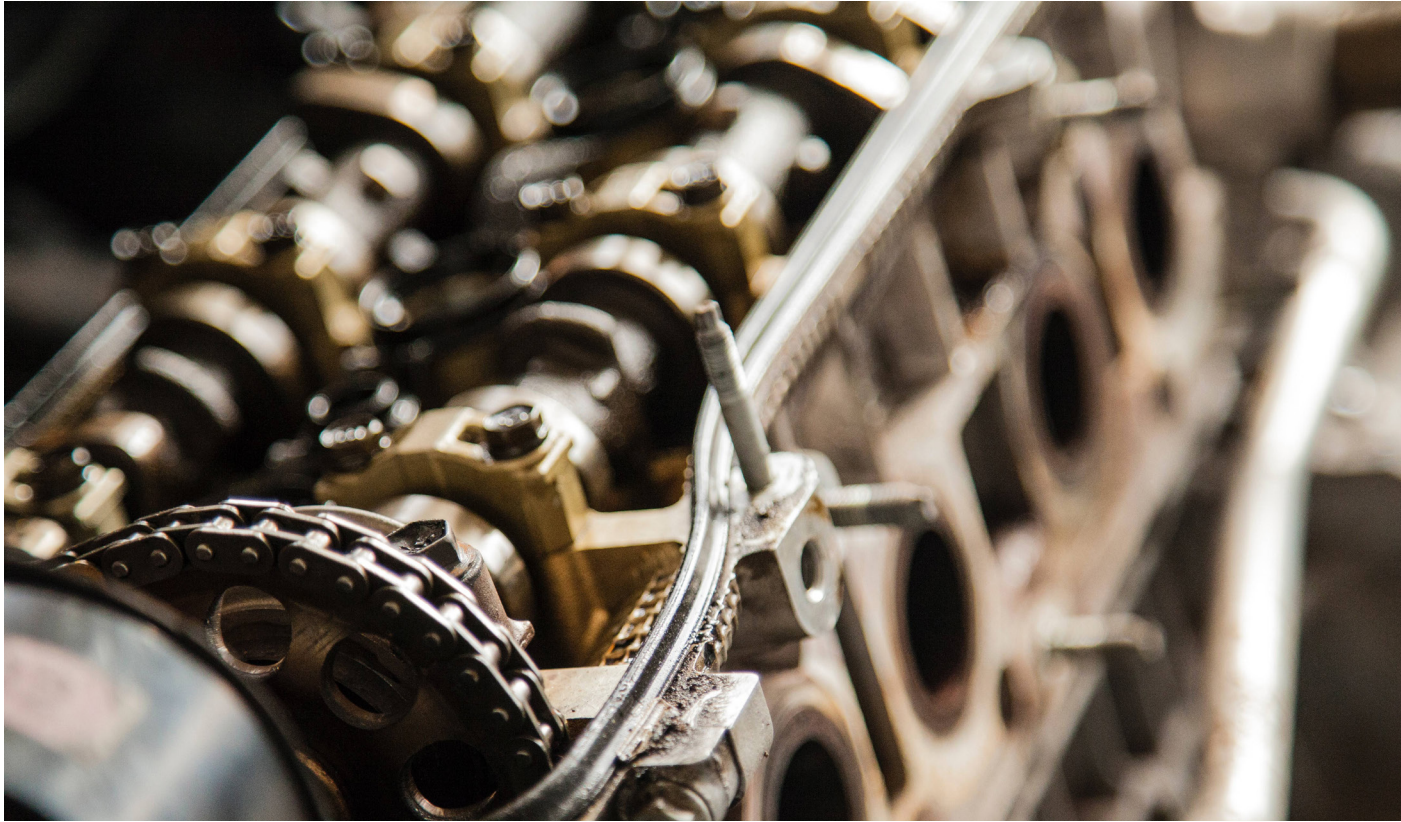
SCAN FOR MORE PROJECT INFORMATION



China Motor Challenge

CHINA ● TRANSPORT AND LOGISTICS

IMPLEMENTATION PERIOD: 11/2009-11/2012
BUDGET: EUR 1,124,946 (EU contribution 80%)



CHALLENGE

Electric motor systems in industrial China account for about 60% of the country's total electricity consumption. Unfortunately, their actual operational efficiency is about 10-30% below international best practice, depending on the industry. As the majority of electricity in China is generated from coal, causing the average amount of CO₂ per kWh to be higher than in developed countries, electric motor systems are a significant contributor to climate change. Certain sectors are particularly intensive users of electric motors but are often unaware of the huge potential savings in energy and the quick return on investment for upgraded motor systems, particularly in small and medium-sized enterprises. The challenge, then, is to raise awareness of the true cost of the motor systems and to raise efficiency as fast as possible.

OBJECTIVES

The SWITCH-Asia project China Motor Challenge aims to facilitate over 400 major industrial users of electric motor systems to improve their operating efficiency of their systems and achieve a far-reaching impact in the demand for high-efficiency motor systems, while actively supporting the creation of a stimulating policy environment.

The specific objectives include:

- Reduction in energy consumption and CO₂ emissions;
- Transformation of the market to rely on high efficiency electric motors, and motor system components;
- Promotion of best practice in the design and application of energy-efficient motor systems;

- Promotion of energy service companies and their services;
- Increased exports in Chinese goods that meet international standards.

OUTCOMES

- Conducting market research prior to the making of action plan for media and interpersonal communication campaign;
- Introducing incentive schemes for consumers. This activity will take place in supermarkets and markets in the three cities, within those entities that have signed Voluntary Codes of Practice (VCP);
- Drafting of guidelines for the design of alternative packaging products and systems;
- Conception of alternative packaging products;
- Training of local SMEs involved in the production of alternative packaging;
- Creation and strengthening of early adopters' groups of SMEs;
- Introducing incentives for vendors/SMEs;
- Drafting of guidelines to support the implementation of the prospective national law.

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LEAD PARTNER

China National Institute of Standardization (CNIS)

PARTNERS

Association of energy service companies – China
Energy Conservation Association (EMCA)

Institute of Systems and Robotics – University of
Coimbra, Portugal

UN Industrial Development Organization – Investment
and Technology Promotion Office, China (UNIDO)

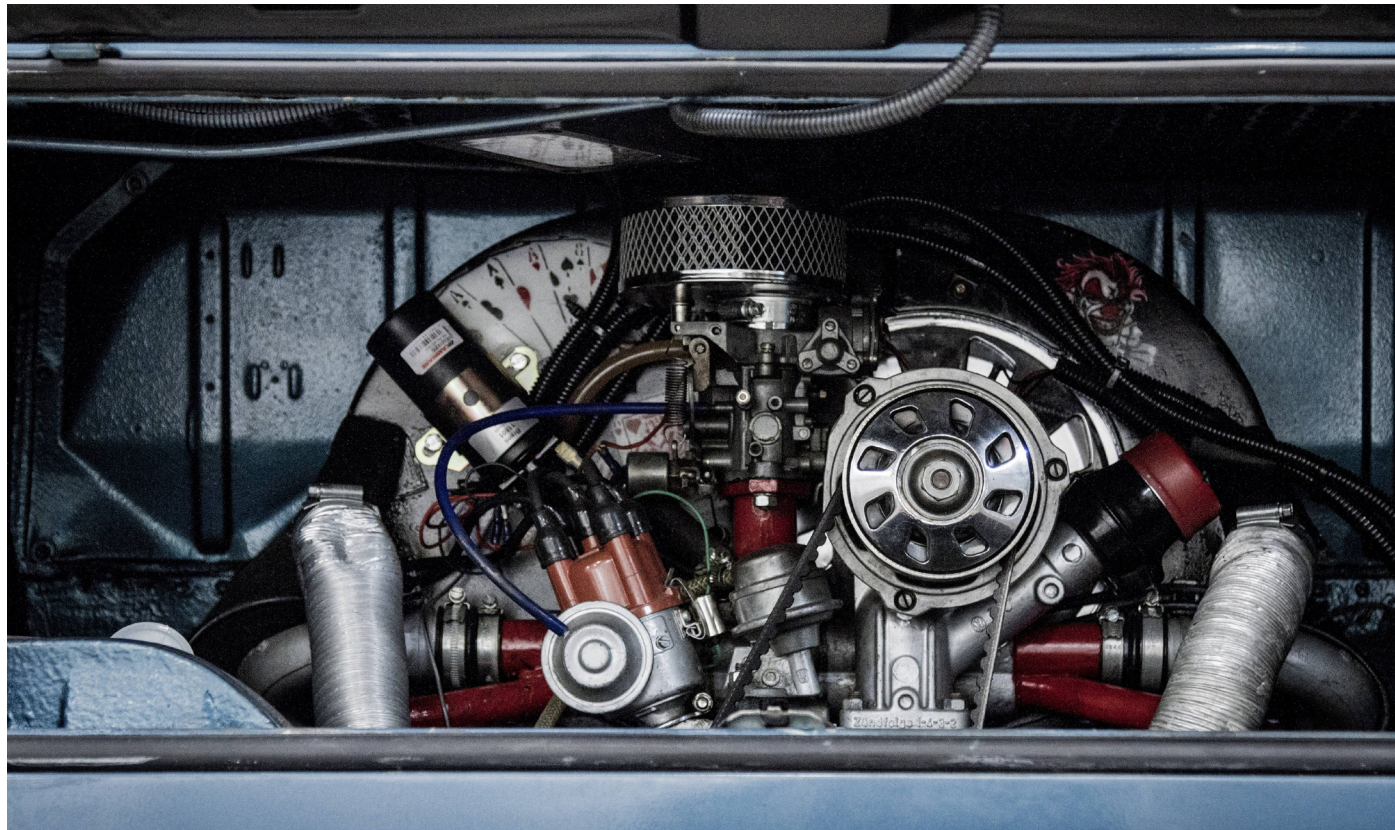


SCAN FOR MORE PROJECT
INFORMATION

High Efficiency Motors (HEMs)

PHILIPPINES ● TRANSPORT AND LOGISTICS

IMPLEMENTATION PERIOD: 1/2014-1/2018
BUDGET: EUR 1,970,469.20 (EU contribution: 80%)



CHALLENGE

According to a study, the efficiency of motors currently used by the Philippine industries can strongly be increased. Improvements do not consist only in motors replacement. 50% of motors are rewound periodically with a corresponding drop in efficiency of 5-10% at each rewinding. A significant share of the motors in place is also either undersized or oversized to compensate foreseen losses due to the low efficiency motors. The lack of proper sizing of motors leads to even lower efficiency and negatively impacts the life duration of the motors.

OBJECTIVES

The project aims to increase energy efficiency of the electricity-intensive industries and achieve reduction in electricity consumption, and to reduce contribution of industries in greenhouse gas (GHG) emissions. Specifically, it aims to increase the deployment of more efficient electric motors and drive systems in Philippine industries.

OUTCOMES

- Demonstrating the technical and financial feasibility and benefits of adopting HEMs through two pilot projects for sugar mills;
- Establishing two new private funding programs to facilitate access to financing for sugar milling, other electric motorintensive industries;
- Building up the capacity of commercial banks to evaluate HEM investment, especially regarding technology risk;
- Building up the capacity of energy service companies (ESCOs) and service providers to investigate and implement HEM projects;
- Increasing the capacity of project developers, SMEs and financier to get information, discuss and negotiate new business opportunities;
- Putting in place a supportive policy framework for HEMs investment law.

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PARTNERS

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Association Action for Sustainable Development (ASD)

Association of Development Financing Institutions in Asia and the Pacific (ADFIAP)

European Chamber of Commerce of the Philippines (ECCP)

International Copper Association Southeast Asia (ICASEA)



SCAN FOR MORE PROJECT
INFORMATION

Greening Supply Chains in the Thai Auto and Automotive Parts Industries

THAILAND ● TRANSPORT AND LOGISTICS

IMPLEMENTATION PERIOD: 3/2014-2/2017
BUDGET: EUR 1,341,033.46 (EU contribution 90%)



CHALLENGE

Exporting cars to international markets requires the industry to also adopt international standards along the supply chain to keep quality and price competitive. While Thailand has an adequate lowskilled labor force, it faces an acute shortage of highly skilled automotive engineers. Additionally, suppliers lack process and product engineering capabilities and innovation capacity to increase productivity and environmental performance in the automotive cluster in Thailand.

OBJECTIVES

The project aimed at improving productivity and environmental performance of Thai auto and automotive parts production. It also aimed at enhancing networks, business and financial services for greening of the industry. Furthermore, it aimed at disseminating good practices and promoting the development and implementation of related policy and economic instruments.

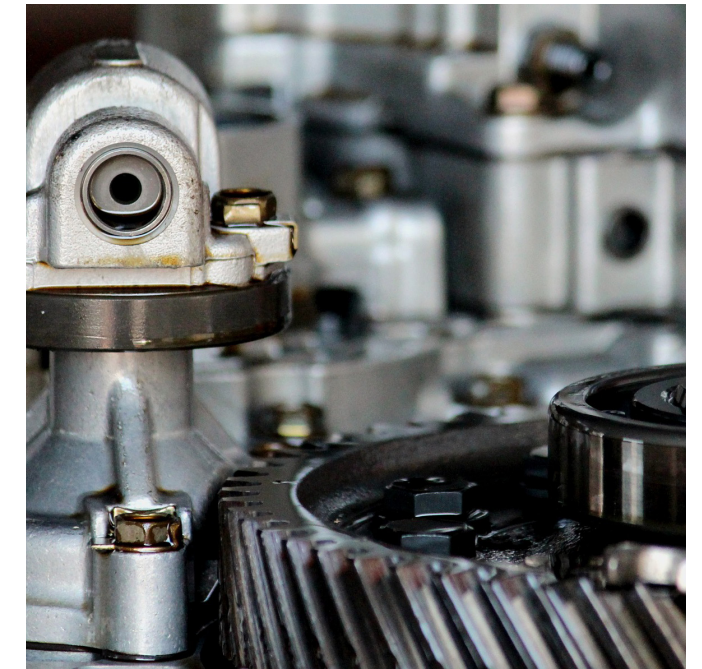
OUTCOMES

- Improving SMEs' Productivity and Environmental Performance
- Creating SME-specific Financial Support Packages
- Strengthening SCP-related Services and Networking
- Developing Showcases and Policy Recommendations
- Forming Service Hubs and Multipliers
- Establishing Supply Chains and Creating New Markets
- Promoting Green Public Procurement
- Stimulating Green Loans
- Drafting of guidelines to support the implementation of the prospective national law.

”

Through this project's support, I have reduced the use of raw materials in my factory by 25 tonnes per year, resulting in a cost reduction of around 2 million Baht (55,375 Euro) per year.

Kamol Chutipongnavin
Kamol Manufacturing Factory



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LEAD PARTNER

Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ)

PARTNERS

Collaborating Centre on Sustainable Consumption and
Production GGMBH

Small and Medium Enterprises Development Bank of
Thailand (SME Bank), Thailand

Thailand Automotive Institute (TAI), Thailand
The Federation of Thai Industries (FTI), Thailand



SCAN FOR MORE PROJECT
INFORMATION



INDTUK - Switching to a sustainable auto-rickshaw system

INDIA ● TRANSPORT AND LOGISTICS

IMPLEMENTATION PERIOD: 3/2016-2/2020
BUDGET: EUR 1,554,742.10 (EU contribution 80%)



CHALLENGE

Auto-rickshaws have been a landmark feature of Indian cities since their introduction in the late 1950s, becoming an indispensable aspect of urban mobility for millions of people. The auto-rickshaw sector could play a key role in shaping a sustainable urban transport ecosystem; it is, however, still an inefficient sector that neither answers appropriately to the changing dynamics of urban mobility in India, nor embeds a sustainable pattern of transportation.

OBJECTIVES

The project aims at promoting sustainable lifestyles and poverty reduction while reducing CO₂ emissions and air pollution in India. The project fosters the scaling up of a replicable and integrated model of sustainable auto-rickshaw transport, based on clean technologies in the Cities of Bangalore and Chennai.

OUTCOMES

- Conducting a Behavioral Change Campaign (BCC) in order to promote the use of 4-stroke auto-rickshaws as a promising sustainability practice;
- Promoting the adoption of a Voluntary Code of Practice by business operators;
- Creating an integrated App-SMS service to support reorganisation of the auto-rickshaw sector to better fit consumers' needs;
- Providing training and strengthening the auto-rickshaw drivers' organisations by creating a Federative Structure;
- Developing commercial partnerships with advertisement companies to use auto-rickshaws as a marketing vehicle;
- Enhancing the drivers' livelihood through increased income and health and safety, and better access to finance. The auto-rickshaw drivers may increase their income by 30% and the number of drivers that own their auto-rickshaw will increase by 70%;
- Working with policymakers to establish regulatory framework promoting the use and purchase of eco-friendly autorickshaws.

”

The power of the project's vision kept us going as we focused on the sustainability of the initiatives that were undertaken. I hope that the lessons learned from our project can greatly contribute to all SMART City missions, heading towards sustainable mobility.

Manju Menon
Project Manager
ACRA



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LEAD PARTNER

Fondazione ACRA (ACRA)

PARTNERS

Stichting Enviu Nederland (Enviu)

The Energy and Resources Institute (TERI)

Women Health and Development (WHAD)



SCAN FOR MORE PROJECT
INFORMATION



Improved Cook Stove Programme Lao PDR

LAO PDR ● COOK STOVE

IMPLEMENTATION PERIOD: 2/2013-1/2017
BUDGET: EUR 2,057,791.90 (EU contribution: 89.79%)



CHALLENGE

Lao PDR is a landlocked country in South East Asia with a population of 6.5 million people. 67% of its population live in rural areas. The majority of the population derive their livelihood from agriculture which accounts for more than half of the country's gross domestic product (GDP). Most of Lao low-income population, both in the rural and urban areas, depend primarily on wood and charcoal for their cooking and heating needs. According to a 2011 report, cooking fuel accounts for 70% of the nation's overall energy consumption. This high dependence on biomass resources degrades the local environment, requires considerable time for fuel collection, is costly, and creates indoor air pollution that harms people's health. In addition, the burning of coal and wood contributes considerably to the greenhouse gas (GHG) emission problem. The project Improved Cook Stove (ICS) Programme Lao PDR identified

the main bottleneck in the ICS supply side while the demand side showed a progressive trend. The project assisted ICS producers to meet quality standards and ensure a stable supply.

OBJECTIVES

The project sought to contribute towards poverty alleviation through the development of a sustainable supply chain of cleaner and fuel efficient cook stoves. It aimed at making ICS dominate 50% of the cook stove market share, and targeted consumers in five provinces for better awareness and access to purchase ICS, as an affordable and high quality alternative to the tra-ditional cook stoves. The project aimed at the following results:

- For 15 small- and medium-sized stove producers to produce 100 000 ICS sustainably;
- 150 SME retailers to promote ICS;

- Lao Women's Union to assume its role as an effective promotional partner;
- Improved access to the clean and fuel efficient cook stove;
- Five testing agencies operational;
- A national standard for stoves endorsed;
- A multi-stakeholder partnership established.

OUTCOMES

- Ensuring Quality of Products
- Creating Market Demand
- Consumer Promotion Campaign
- Establishing Public/Private/Civic Partnership
- Engaging with Policymakers
- Improving Access to Finance



”

We considered this project to be very challenging, not only due to our ambitious goal of producing 100,000 stoves within four years, but also to raising awareness and encouraging people to care about climate change. Users have quickly become more confident in the efficiency of the stove and, through word of mouth, are flocking to the retailers that can't keep up with the demand!

Amphone Souvannalath
Project manager
NORMAI



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LEAD PARTNER

Oxfam

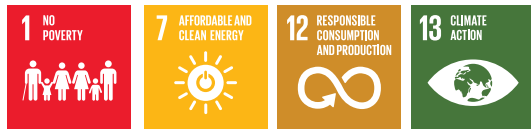
PARTNERS

NORMAI, Lao PDR

SNV Netherlands Development Organisation (SNV)



SCAN FOR MORE PROJECT
INFORMATION



SCALE - Upscaling improved cook stove dissemination

MYANMAR ● COOK STOVE

IMPLEMENTATION PERIOD: 1/2014-7/2018
BUDGET: EUR 2,465,770 (EU Contribution: 81.11%)



CHALLENGE

According to the WHO, 3 million people die each year because of open fire or traditional biomass (firewood and charcoal) cooking devices. In Myanmar, a country of 60 million people, more than 85% of the population relies on biomass and cooks daily with inefficient and highly polluting cookstoves. Today, most of the wood used as fuel comes from unsustainable and sometimes illegal logging of local forests. Forest degradation has become a major issue in Myanmar, with an annual deforestation rate of 2% (UN FAO 2007). Fuelwood use also increases the burden on women, as they are the household members primarily in charge of collecting firewood, spending more than 200 hours a year on this activity. In addition, traditional cookstove production is highly fragmented and not standardized, with consumers rarely having

information on the quality, performance or safety of such devices. Cleaner and more efficient alternatives, such as improved cookstoves (ICS), are not widely available.

OBJECTIVES

The Action aims at catalysing the Improved Cookstove (ICS) sector in Myanmar through an integrated approach to achieve a high added-value for the local private sector, product quality control, improved access to ICS markets, and informed decision making at the policy level. The specific objectives included:

- Supporting ICS sector development and scale up the production, supply and promotion of improved cookstoves;
- Stimulating domestic demand for ICS;

- Fostering a policy environment that is supportive of positive climate and energy action.

OUTCOMES

- By the end of the project, 30 trained ICS skilled producers reached an total average production of between 6,000 and 8,000 standardised quality, locally appropriate, affordable ICS models per month;
- Distribution chains in 8 states/divisions received over 40,000 USD of added value income from ICS distribution;
- At least 50 distributors/retailers are involved in supplying the market with standardised quality ICS;
- In the Dry Zone and in Patheingyi area, all trained producers have passed the quality training. All of them are following up their production and sales thanks to a dedicated logbook;
- 92% of households indicate to be satisfied with the San Pya ICS. Whereas producers (65%) and distributors (80%) now are aware and knowledgeable on quality and durability of ICS. Before the project most producers had limited idea about quality and durability. As a result, the confidence in the San Pya ICS has been established and should trigger an increased uptake through the market;
- 60 SMEs were engaged in the production and distribution of ICS, with sustainable business plans, and contribute to job creation;
- 41,500 households using ICSes benefited from time and/or money savings and improvement in sanitary conditions.

”

All project's stakeholders, including governmental counterparts such as the Forest Research Institute or private sector representatives, constructively collaborated to achieve a scale-up of ICS dissemination in Myanmar. Households and small-business cookstove users were satisfied with the redesigned cookstoves and the ICS value chain had really taken off by the end of this project.

François-Xavier Sorba
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LEAD PARTNER

GERES - Acting for Climate Solidarity

PARTNERS

Ever Green Group

IcoProDAC

The Humanist Institute for Development Cooperation
(HiVOS), Netherlands



SCAN FOR MORE PROJECT
INFORMATION

Women-centred ICS - Improved cook stoves for sustained adoption at scale

INDIA

ELECTRICAL AND ELECTRONICS

IMPLEMENTATION PERIOD: 1/2016-12/2019

BUDGET: EUR 2,000,000 (EU contribution: 80%)



CHALLENGE

Over 145 million Indian households use traditional cook stoves for daily cooking and depend on biomass (wood, dung, forest products) as fuel. This has significant implications especially on women’s health due to household air pollution (HAP). A complex combination of factors like cooking traditions, intra-household distribution of incomes and gender dynamics, culture, religion, and affordability affect sustained adoption and use of Improved Cook Stoves (ICS) in the country. Low demand discourages suppliers from investing in ICS, and suitable financing options for consumers and entrepreneurs are unavailable. These limit the transition of poor households to clean cooking energy options. There is a need to develop a women-centered model of ICS extension that enables sustainable adoption backed by a strong and inclusive value chain.

OBJECTIVES

The project seeks to promote sustainable adoption of ICS as a clean cooking energy solution among forest-dependent households (FDH), resulting in 10,000 women from FDHs using ICS. The project also develops a sustainable ICS adoption model for replication among 800 million rural households in India, who use traditional and polluting cook stoves.

OUTCOMES

- Creating awareness through 200 Self Help Groups (SHGs) on ICS, based on findings of situational analysis and a baseline study;
- Selecting suitable ICS options available and developing new ICS options for testing and adoption;
- Training and developing Sustainable Household Energy (SHE) Champions and supporting them in organising SHE-Schools;
- Designing exclusive credit products which can be offered by local micro-finance institutions (MFIs) to facilitate ICS adoption;
- Sensitising key supply chain stakeholders to support appropriate cooking solutions;
- Providing business development and technical training to women entrepreneurs for establishing and running ICS based enterprises, and facilitating enterprise linkages with market actors.
- Engaging with policymakers through policy briefs as evidence based advocacy.



Switching from traditional cook stoves to LPG requires a long jump on the development ladder; a jump that poor households are still not equipped to make. Accessible, affordable and available ICS could provide an interim solution until all Indian households can access clean cooking fuel.

Sagar Kumar Mahapatra
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LEAD PARTNER

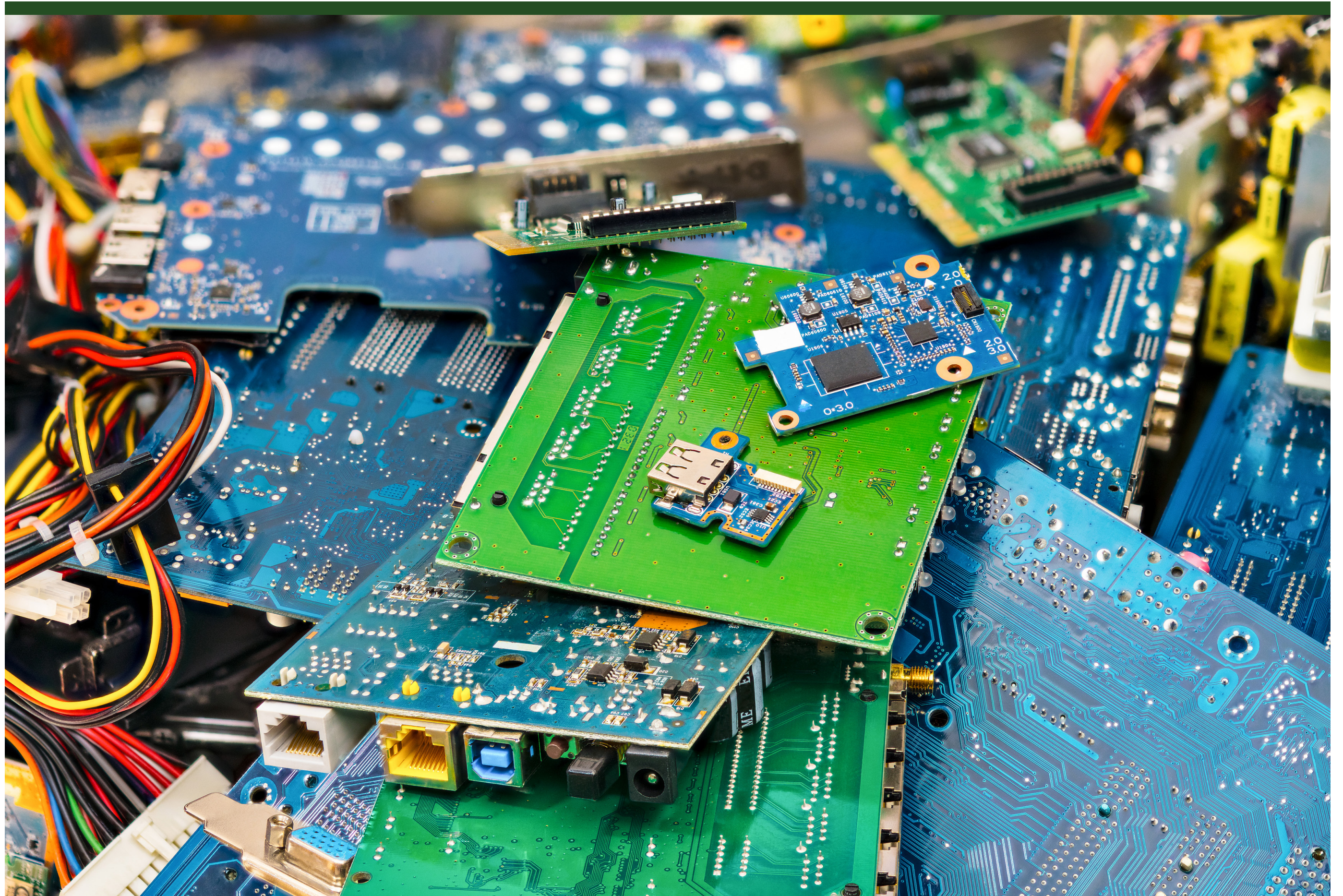
CARE India Solutions for Sustainable Development (CARE India)

PARTNERS

CARE France



SCAN FOR MORE PROJECT INFORMATION



ESEEC - Improving environmental and safety performance in the electrical and electronics industry

CHINA ● ELECTRICAL AND ELECTRONICS

IMPLEMENTATION PERIOD: 2/2009-2/2013
BUDGET: EUR 2,599,087 (EU contribution: 80%)



CHALLENGE

China's economic boom has increased energy consumption and environmental degradation. Concerns for the health and safety of both workers and consumers are now growing. The electrical and electronics industries have been significant players in this economic growth and often play an important role in international supply chains. At the same time, they are substantial contributors to China's water and air pollution, and are significant emitters of carbon dioxide.

OBJECTIVES

The project aimed at promoting sustainable production patterns in the electrical and electronics industries. By mobilising the private sector along with relevant public sector authorities, the project sought to improve the performance of over 500 Chinese SMEs in the electrical and electronics sector in the areas of eco-efficiency, occupational health and safety (OHS) as well as corporate social responsibility (CSR).

OUTCOMES

- Facilitated trade and cooperation among Chinese and European enterprises of electrical & electronics sector resulting from compliance with eco-efficient and sustainable production standards;
- Reduced risk of workplace accidents and health hazards through implemented OHS measures;
- Improved social standards through implemented CSR practices;
- Baseline survey on environmental performance of Chinese electrical & electronics enterprises conducted;
- Standards Guidelines developed and disseminated;
- Conformity model for SMEs applied in 5 regional clusters;
- Declaration signed by 6 key domestic industry players;
- SME Training and Assessment Programme implemented: more than 20 training workshops and a series of assessments;
- More than 1,600 SMEs & 200 policy-makers involved in project activities.

”

While promoting responsible resource management models, our project generated multiple win-win benefits for European supply chains and more than 1,600 Chinese SMEs of a fast-growing and traditionally export-oriented sector.

Igor Darbo
Project Manager
AHKB/DIHK

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LEAD PARTNER

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PARTNERS

China National Institute of Standardization (CNIS)

China Standard Certification Center (CSC)

Chinese Institute of Electronics (CIE)

Deutsche Telekom



SCAN FOR MORE PROJECT
INFORMATION

REWIN e-Waste Tracking System - Improving resource-efficiency for the production and recycling of electronic products

CHINA ● ELECTRICAL AND ELECTRONICS IMPLEMENTATION PERIOD: 12/2011-7/2015 BUDGET: EUR 1,751,391 (EU Contribution: 80%)



CHALLENGE

China is a fast developing economic region, especially the production of electrical and electronic equipment (EEE) is rapidly growing. On the one hand these growing amounts of EEE causes severe environmental damages when not handled properly as waste, on the other hand post-consumer Waste Electrical and Electronic Equipment (WEEE) contain many materials that are valuable when used as secondary raw materials in the production processes of electronics. In addition, the recycling of residual materials from the electronics production industry saves valuable resources. According to a 2009 United Nations Environment Program (UNEP) report, China already produces about 2.3 million tonnes of

e-waste (2010 estimate) domestically, second only to the United States with about 3 million tonnes. And, despite having banned e-waste imports, China remains a major e-waste dumping ground for developed countries.

OBJECTIVES

The overall objective of the action is to contribute to sustainable production for both Chinese producers of EEE and recyclers via promoting resource efficiency in order to lower the environmental impact of WEEE. Specific objectives include:

- Linking supply and demand of secondary raw materials in electronic production and recycling (chain approach);

- The development of an adequate recycling infrastructure for WEEE as post-consumer waste and secondary raw materials from electronic producing industry; and
- The development of a knowledge structure on Design for Recycling between the recyclers and the electronic producing industry.

OUTCOMES

- Established the Electronic Waste Tracking System (e-WTS) Central Office within China's National Solid Waste Management Centre (NSWMC) as central body;
- The e-WTS was included in the existing WTS for hazardous waste and thus it will be adapted and scaled-up;
- A business network was established by involving all stakeholders of the value-chain through the implementation of e-WTS and a Secondary Material Exchange Platform (SMEP);
- Strengthened the capacities of the target EEE producers on integrating concepts of Design for Recycling into the product designing, selecting of materials and technologies and production processes.



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LEAD PARTNER

University of Natural Resources and Life Sciences Vienna

PARTNERS

Beijing University of Civil Engineering and Architecture (BUCEA)

China Electronics Enterprises Association (CEEA)

Jingzhou Environmental Protection Bureau

NL Agency



SCAN FOR MORE PROJECT INFORMATION

WEEE Recycle - Establishing e-waste channels to enhance environment friendly recycling

INDIA ● ELECTRICAL AND ELECTRONICS IMPLEMENTATION PERIOD: 1/2010-12/2013
BUDGET: EUR 2,004,045.37 (EU contribution: 80%)



CHALLENGE

The rapid growth of electronics and electrical industries and high obsolescence rates of their products is continually generating more waste. India needs to deal with major disposal challenges. 95% of e-waste (computers, mobile phones and televisions) enters informal channels of backyard, home and cottage industry recyclers – harming workers and the environment. Emissions from the open burning, unhealthy dismantling and smelting units, makeshift facilities are not meeting occupational health and safety standards but are still being used for toxic waste, unsorted e-waste openly dumped.

OBJECTIVES

The project formalised and mainstreamed e-waste management, raised awareness of and the potential for new technologies, and urged changes to be based on sustainability and business principles. Specific objectives were:

- To support the implementation of the National Environment Policy encompassing the 3Rs and 'polluter pays' principle, with a clear role for the involvement of the informal sector in waste management;

- To reduce pollution from recycling e-waste in the informal sector in four urban areas, by encouraging environmentally sound recycling through the collective effort of all relevant stakeholders in the value chain;
- To involve informal sector SMEs in the e-waste channel and to streamline these activities;
- To develop and improve the technology for e-waste management and recycling in both informal and formal sectors.

OUTCOMES

With the notification of E-waste Management and Handling Rules 2011 a supportive regulatory framework was developed.

- Guidelines for implementation of Rules were drafted;
- Establishment of informal sector associations/ companies in four Indian cities;
- Establishment of an e-waste collection and channelisation mechanism;
- Capacity building for informal sector workers, recyclers and policy makers;
- Research and development on Green Products and Carbon Footprint;
- E-waste calendars, school poster competitions, a television slot, a project film for Rio+20 and general awareness programmes contributed to awareness on e-waste.

”

Working in accordance with the set regulations on e-waste, we were supported to mainstream and formalise our sector. A collection centre was opened and huge support was provided in e-waste channelisation. Partnering with a German investor, now the company has been registered to start a dismantling facility in the State of Haryana.

Mohd. Sabir
Director

Green E-waste Recyclers Pvt. Ltd., New Delhi

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LEAD PARTNER

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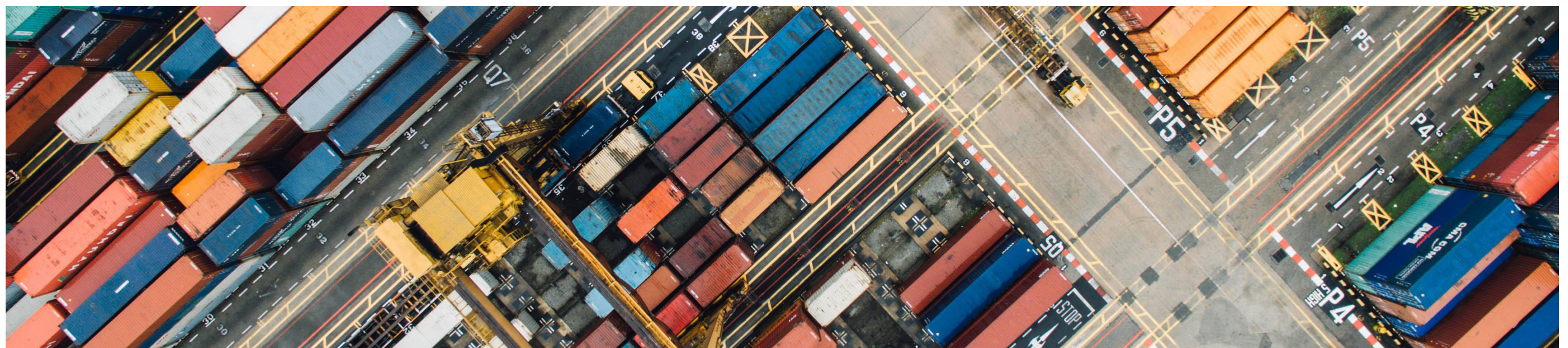
adelphi

Manufacturers Association for Information Technology
(MAIT)

Toxics Link



SCAN FOR MORE PROJECT
INFORMATION



MEET-BIS Cambodia - Mainstreaming Energy Efficiency through Business Innovation Support

📍 CAMBODIA • MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2014-12/2015
BUDGET: EUR 1,996,196 (EU contribution: 90%)



CHALLENGE

SMEs make up a crucial part of the Cambodian economy and form a crucial segment to enhance sustainable production in the country. Many SMEs in Cambodia work with outdated and inefficient technology. With energy prices being high, their inefficiency implies high production cost to the business, as well as high cost to the environment. Local available technologies are often not adopted due to several factors, amongst others:

- The lack of institutional capacity of existing installation companies to adequately translate these technical solutions into business-smart, cost-saving products for SMEs;
- Limited understanding of (the benefits of) these technologies;
- Limited access to external financing for SMEs.

OBJECTIVES

The project sought to promote economic prosperity and poverty reduction in Cambodia with reduced adverse environmental impact of SMEs in selected sectors. The specific objective was to improve the competitiveness of SMEs in selected sectors in Cambodia through commercially viable and scalable business innovation packages enabling SMEs to effectively invest in clean technologies for their business.

OUTCOMES

- Identified viable product market combinations;
- Established partnerships with technology suppliers;
- Developed and provided business support packages for the different partner SMEs involved in the EE value chains;
- Mobilised access to finance for SMEs by identifying and building up partnerships with financial institutions.



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LEAD PARTNER

ETC Foundation, Netherlands

PARTNERS

AdaPPPt, The Netherlands

RainWater Cambodia



SCAN FOR MORE PROJECT
INFORMATION

AEMAS - Establishment of the ASEAN Energy Management Scheme

CAMBODIA, INDONESIA, LAO PDR, MALAYSIA, MYANMAR, PHILIPPINES, THAILAND, VIETNAM

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 2/2010-1/2014
 BUDGET: EUR 2,152,056.76 (EU Contribution: 80 %)



CHALLENGE

To actually incorporate energy efficiency in the management policy of a company, the energy management role must be assigned to a senior manager who has access to the board. The senior manager must also be trained for the effective integration of energy management systems in their companies. This is the concept of the “energy manager” function. The energy manager must be a senior manager, who will have a technical team to design and implement energy management measures in the context of a sustainable energy management system that must be incorporated in the company’s corporate policy.

OBJECTIVES

The project aimed at increasing the energy efficiency of industries in the Association of South East Asian Nations (ASEAN) through the establishment of the ASEAN Energy Manager Accreditation Scheme (AEMAS). Further objectives were to train and certify energy managers and provide certification on a large scale for energy end-users.

OUTCOMES

- Through project implementation, Php 1.6 million / year (EUR 26,033/year) has been saved;
- An increase of profit returned to capex for more energy efficient equipment;
- New green product has been introduced to market that is inverter air conditioner using ozone-friendly refrigerant (R410A);
- CO₂ reduction from initially 147 tons to 62 tons upon project completion;
- Reduction of 186, 000 KWh (3%) energy use;
- Establishment of 6 national councils (Country Chapters);
- Contribution to content of Energy Efficiency & Conservation Laws (amendment to existing rules and regulations).

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LEAD PARTNER

ASEAN Centre for Energy, Indonesia

PARTNERS

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Green Technology Corporation, Malaysia

International Copper Association Southeast Asia (ICASEA), Thailand

Myanmar Engineering Society (MES), Myanmar

Pelanggi, Indonesia

Research Center for Energy and Environment (RCEE), Vietnam



SCAN FOR MORE PROJECT INFORMATION

Sustainable Rattan - Establishing a sustainable production system for rattan products

CAMBODIA, LAO PDR, VIETNAM

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2009-12/2011
BUDGET: EUR 2,417,694 (EU Contribution: 80%)



CHALLENGE

The harvesting and pre-processing of rattan in Laos, Cambodia and Vietnam was unsustainable and wasteful. The processing industry was over-exploiting the rattan sources, had little environmental awareness, and was responsible for health risks to its workers. The rattan industry faced poor competitiveness on the global market. However, villagers have been heavily relying on this resource for their income.

OBJECTIVES

The project aims to boost the export of sustainable rattan products and improve the environmental performance of the processing industry. By 2015, the project envisions that at least 50% of rattan processing in the region will be sustainable, leading to environmental improvements, strengthened competitiveness, poverty alleviation and national economic benefits.

OUTCOMES

- Systematic involvement and training of all actors along the rattan supply chain, from village producer groups to buyers;
- 12 contracts with international retailers were signed and 46 are being drawn up;
- 22,000 villagers increased their income by 5-45 %;
- World-wide first FSC certified rattan and 19,000 ha under responsible forest management;
- 220 SMEs were introduced to cleaner production;
- Policies reviewed and piloted to support community based rattan processing and to promote a green rattan industry;
- 38 SMEs started to switch their production system in consideration of environmental and social standards;
- 5,774 households (rattan pre-processors) improved rattan production skills;
- WFTO membership for Rattan Association of Cambodia.

“ Cleaner production provides clear benefits to our company: we save around US\$ 7,000 a year.

Mr Thien
Au Co company, Vietnam



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Vietnam Cleaner Production Centre (VNCPC), Vietnam



SCAN FOR MORE PROJECT INFORMATION

SPIN-VCL - Sustainable Product Innovation in Vietnam, Cambodia and Laos

📍 CAMBODIA, LAO PDR, VIETNAM ● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 4/2010-9/2014
BUDGET: EUR 2,854,782.14 (EU Contribution: 80 %)



CHALLENGE

In Vietnam, Laos and Cambodia, current growth has significant environmental and social impacts. Competitiveness and the added value of products of are still relative low in the region. Sustainable product innovation (SPIN) is an essential element in the development towards a greener economy as products are the core business of enterprises. Innovation for sustainable product designs is the key to create new business activities.

OBJECTIVES

The project sought to improve innovative power of industry, and improve environmental and societal quality of products made in Vietnam, Cambodia and Laos by implementing sustainable product innovation (SPIN) on a significant scale in these three countries.

OUTCOMES

- SPIN toolkit development, connected studies in marketing and policies facilitation;
- Train-the-trainer workshops and training for more radical sustainable product innovation;
- Three cycles of SPI implementation: 100-150-250 companies, cycles 1 and 2 with trainers, multiplier cycle 3 do-it-yourself, with support and SPI circles;
- Project branding, marketing skill trainings for SMEs, marketing access via fairs, product catalogues, promotion of sustainable public policy & procurement with government organisations;
- Setting up SPI Networks, national conferences, web movies and publicity and reports.

”

In the upcoming years, we will keep moving towards cleaner production and sustainable product innovation to increase the value of our creations and reduce environmental impacts.

Vu Thi Cam Tu
Director
An Do

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SCAN FOR MORE PROJECT
INFORMATION

China Heat Pump Water Heater Challenge

CHINA

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 2/2013-1/2017

BUDGET: EUR 2,069,861 (EU Contribution: 80%)



CHALLENGE

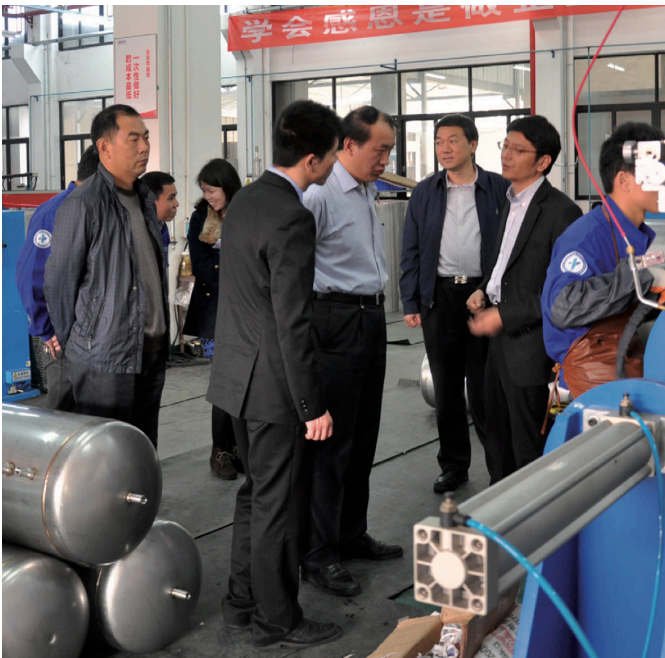
In China, the broad uptake of Heat Pump Water Heater (HPWH) faces many challenges. Firstly, the upfront cost of an HPWH is higher than that of an electric water heater, and similar or a little higher than a solar water heater. Secondly, consumer awareness in China is still very low. Consumers also have no means to compare between different types of water heaters. Thirdly, the level of HPWH technology used in China is significantly lower than in Europe, leading to lower reliability, lower efficiency, less-than-ideal refrigerants used, and limited range.

OBJECTIVES

The project promotes residential HPWH in China to reduce greenhouse gas (GHG) emissions. It plans to increase the market share of household heat pump water heaters to 6.5 % in Southern China.

OUTCOMES

- Strengthening the China Heat Pump Alliance to facilitate EU-Asia exchanges of experience, and enhancing potential for credibility, visibility, and acceptance of the outputs of the action;
- Strengthening of the capacity of intermediaries;
- Strengthening consumer awareness;
- Upgrading HPWH manufacturing through enhanced ability and readiness to apply eco-design;
- Establishing a new single standard and a labelling scheme supporting HPWH greater deployment;
- Creating a supportive policy framework allowing HPWH to benefit from subsidies available to renewable energy technologies.



“ We have used the HPWH for a year and it has really helped us save electricity costs. In the summer, most days it consumes just 1 KWh for the whole family to bath. When we used the electric water heater, it reached up to 4 KWh or more.

Li Xiaodong
Consumer from Wuhan, Hubei province

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SP Sveriges Tekniska Forskningsinstitut AB, Sweden



SCAN FOR MORE PROJECT INFORMATION

China Higher Efficiency Power and Distribution Transformer Promotion

CHINA

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 12/2009-12/2012

BUDGET: EUR 781,832.95 (EU Contribution: 80%)



CHALLENGE

The annual loss of electricity in China is more than 20 billion kWh. About 30-40% of this loss derives from power transmission and distribution. Large energy intensive industries use a lot of transformers and upgrading the inefficient ones is not economical – the energy savings generated are not enough to compensate for the investment cost. Local manufacturers lack capacity to produce higher efficiency transformers. End-users do not see the advantages of using them.

OBJECTIVES

The project sought to reduce electricity loss by increasing the market penetration of higher efficiency transformers (S11 and above), and by enlarging their market share in China.

OUTCOMES

- Close partnerships were established among the policymakers, institutes, manufacturers, end-users and energy management and supervision organisations;
- Three national standards for transformers were developed: the minimum energy performance standards (MEPS), the ecodesign guidelines for manufacturers, and a total-cost owning guideline (TCO) and tool to support procurement decisions.
- The MEPS standard was submitted and will be issued officially by the government in 2013. The eco-design standard and TOC guideline were issued and effective at 2012 officially;
- The MEPS is mandatory and thus all newly installed transformers will have to comply once it is approved;
- The acceptance of the eco-design guideline by Chinese manufacturers was ensured by a closed involvement of China Electrical Equipment Industrial Association (CEEIA);
- End-users are enabled to take an informed decision by using the TCO guideline and products' database developed by the project.



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- China Electrical Equipment Industry Association (CEEIA), China
- China Electricity Council (CEC), China



SCAN FOR MORE PROJECT INFORMATION

EMAS Global China - Premium environmental management for companies in China

CHINA

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 3/2012-2/2016
BUDGET: EUR 1,234,298.50 (EU Contribution: 80%)



CHALLENGE

Products 'made in China' are common today – with a daily increasing share of traded goods. However, there are justified concerns about the sustainability of production in China and its negative environmental and social impacts. These concerns affect also the credibility of products 'made in China'. The project is specifically addressing Cleaner Production, using the EU Eco-Management and Audit Scheme (EMAS) to bundle forces along the global supply-chain in a systemic approach to stimulate sustainable consumption and production.

OBJECTIVES

The project sought to promote sustainable consumption and production patterns through the use of the voluntary, marketbased EU Eco-Management and Audit Scheme (EMAS).

OUTCOMES

- Enabling policy environment by harmonising the certification, verification and registration procedures of industrial sites located in China (Conformity Model);
- Increased energy and resource efficiency;
- Compliance with legal requirements and international standards of responsible business behavior;
- Greening the supply chain (China to Europe);
- Active involvement of employees to improve environmental performance, workplace safety, and innovation.

”

From my point of view, EMAS is the world premium environmental management system. We have experienced environmental, economic and management benefits from implementing EMAS. The scheme is really helpful for us and I think it will be extremely valuable for companies.

YOU Li

Manager

EHS Department of Schaeffler Group

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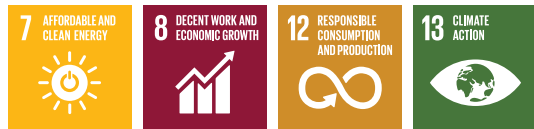
Centric Austria International (CAI)

China Environmental United Certification Center Co., Ltd (CEC)

China Quality Mark Certification Group Co., Ltd (CQM)



SCAN FOR MORE PROJECT INFORMATION



FEES - Financing Energy and Environmental Solutions

📍 CHINA ● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 2/2013-1/2017
BUDGET: EUR 2,069,861 (EU Contribution: 80%)



CHALLENGE

Lack of access to finance is the greatest barrier to implementing high-cost cleaner production (CP) and energy efficiency (EE) projects in small and medium enterprises (SMEs) in China. As SMEs make up 97% of all firms, enabling them is critical for transforming the economy to a system of sustainable consumption and production. However, there is a disconnect between SMEs and financial institutions (FIs). On one hand, SMEs have not been able to make compelling financial and economic cases for EE and CP projects to financial institutions while on the other hand, financial institutions possess limited capacity to gauge risks and opportunities associated with CP and EE projects. These problems are relevant in Shaanxi, one of China's fastest growing economies, where rapid growth led to increased pressure on the environment and natural resources.

To bridge the gap that prevents the widespread adoption of CP and EE, there is a need for competent environment and energy service providers that can provide integrated technical solutions and also prepare credit-worthy EE/CP projects.

OBJECTIVES

Assist SMEs in Shaanxi achieve significant pollutant discharge reduction and energy saving, carbon emission mitigation by improving their capacity to access green credit as well as implement high and medium-cost energy efficiency and cleaner production measures. Specific objectives include:

- Enhancing the capacity of Shaanxi SMEs, particularly in eight energy and pollution-intensive sectors, to access green credit and implement high and medium-cost energy-efficient, cleaner production measures;

- Developing risk-sharing mechanisms between government and financial institutions and improving their risk management capacity, and implementing innovative green credit products for SMEs;
- Strengthening the ability of government agencies and local energy service entities to engage in effective energy audit, inspection and information management activities.

OUTCOMES

- Building the capacity of SMEs to adopt CP/EE high-cost options;
- Bridging the gap between SMEs and Financial Institutions;
- Training of local Environment/Energy Service Providers;
- Developing policy recommendations for CP/EE promotion.

”

Lack of access to finance is the greatest barrier to upscaling energy efficiency and cleaner production measures in SMEs. FEES has built the capacity of financial institutions to capitalise on energy and environmental investments in the SME sector. To bridge the gap between SMEs and banks, a risk sharing facility has been built to spur SME green investment.

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EMCA

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Sustainable Technology Adaptive Research & Implementation Center / Nepal (STARIC/N)

The Climate Change Organization, UK

Xi'an Municipal Research Institute of Environmental Protection, China



SCAN FOR MORE PROJECT
INFORMATION

Industrial Symbiosis

CHINA

● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 10/2009-10/2013
BUDGET: EUR 1,848,316 (EU Contribution: 80%)



CHALLENGE

China's environment could not sustain the production system of high input, low output, high consumption and low efficiency. Industry was a major contributor to resource consumption and pollution. Industrial areas such as Tianjin Binhai New Area (TBNA) could reduce their environmental impact by applying the principles of industrial ecology and establishing a network of material and energy flows among enterprises. TBNA needed to tackle problems like the large quantity of industrial waste. It faced weak environmental management capacity, and lack of effective networks for creating waste exchange synergies between companies. The project Industrial Symbiosis in Tianjin Binhai New Area facilitated synergies between companies to raise the effectiveness of resource and energy utilisation, and to minimise the discharge of waste.

OBJECTIVES

The project aimed to promote sustainable production among small and medium-sized enterprises (SMEs) in TBNA by introducing industrial symbiosis (IS) and environmental management systems, and by showcasing a large-scale industrial symbiosis network. By creating an industrial symbiosis network, TBNA facilitated material, by-product, energy and logistic exchange among 800 SMEs.

OUTCOMES

- Recruit business intermediaries as partners for the industrial symbiosis network, engage with relevant organisations and public bodies, manage synergies; prepare quarterly programme advisory meetings and report successful case studies;
- Provide SMEs with ISO14001 certification training courses and walk-through audits;
- Form an industrial symbiosis network technical team; develop & deploy synergy management tools; train industrial symbiosis network practitioners;
- Organise policy study tours; develop encouraging policies & develop Chinese guidelines for industrial symbiosis network implementation.



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Tianjin Port Free Trade Zone Administrative
Committee, China

UNIDO – Investment and Technology Promotion
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SCAN FOR MORE PROJECT
INFORMATION

Sustainable Consumption in Urban China

CHINA

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 12/2011-11/2014
BUDGET: EUR 997,396 (EU Contribution: 80%)



CHALLENGE

Although great progress has been achieved in raising awareness of sustainable consumption (SC) and green supply chains, the existing SC practices are very much at the demonstration level: The current situation in China shows that willingness to buy green products is relatively high. But in practice, expenditures on buying green products are much lower. The main barriers for citizen's to buy green are availability, accessibility, and the price and information displayed on green products and services.

OBJECTIVES

The project sought to promote resource-efficiency and environmentally friendly economic development in China through mainstreaming individual sustainable consumption, and, at the same time, to improve the quality of living in the target area.

OUTCOMES

- Facilitated voluntary agreements between consumer associations, target supermarkets and SME suppliers;
- Conducted research focused on local people's attitude and willingness to buy 'green', the availability of sustainable products, and the quality of life and general awareness of sustainable consumption. Twenty-five per cent of consumers were concerned about price, and only 9% of consumers paid attention to SC and environmental issues;
- Established a Green Consumption School – a weekly voluntary awareness programme open to all citizens in Beijing and Tianjin. These community green consumption schools offered various training courses and workshops. More than 1500 participants had attended;
- 1,058 green supply contracts signed by SME suppliers and retailers;
- Conducted a survey among SME suppliers, which identified performance, technology, and raw material prices as suppliers' main constraints.

”

By engaging supply chain business networks and encouraging the participation of retailers, consumers, consumer associations, authorities, and citizens, the central impact of this project was the change in lifestyle and consumption behaviour towards low-carbon living and sustainability in China.

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City2020 Foundation, Netherlands

Institute for Public Policy Research, UK

Nankai University, China

Tianjin Consumer Association, China



SCAN FOR MORE PROJECT
INFORMATION

SUPP-URB CHINA - Sustainable Public Procurement in Urban Administrations in China

CHINA • MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 12/2008-12/2011
BUDGET: EUR 917,450 (EU Contribution: 80%)



CHALLENGE

In the dynamic Chinese economy, the production of electrical and electronic equipment is increasing. In September 2006, China's Ministry of Finance and the State Environmental Protection Administration (now the Ministry for Environmental Protection) issued a directive fostering green public procurement. This is now accompanied by a frequently updated 'green purchasing list' of eco-friendly products and producers. The listed products should receive priority in public procurement, but in reality, implementation at a local level is still lacking.

OBJECTIVES

The project sought to adapt and use sustainable public procurement standards in municipal public procurement centres in Tianjin, Qinhuangdao and Lanzhou and to mainstream their application in China.

OUTCOMES

- The SUPP-Urb project provided assistance with the design and implementation of sustainable public procurement (SPP) in three municipal public procurement centres;
- European good practice, experiences and lessons learnt were discussed with the centres and included in technical guidelines for sustainable public procurement for the target cities;
- The focus of the action was on product groups and services which have a particularly high potential for environmental improvements;
- Project results were disseminated at stakeholder workshops and conferences attended by several associated Chinese cities interested in SPP;
- The changes in procurement practices of the three targeted PPCs achieved reductions of 105,749 tonnes CO₂. This is the equivalent of the annual CO₂ emissions of 17,335 Chinese people in 2009.

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Lanzhou Public Procurement Centre, China

Nankai University, China

Qinhuangdao Public Procurement Centre, China

Tianjin Public Procurement Centre, China



SCAN FOR MORE PROJECT
INFORMATION

VA3 - Improving energy efficiency and environmental performance of Chinese SMEs and large companies facilitated by Voluntary Public-Private Partnerships

CHINA

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2012-12/2015

BUDGET: EUR 1,942,233 (EU Contribution: 80%)



CHALLENGE

In China, many SMES operate inefficiently. Data shows that average water and energy consumption per GDP in SMEs is much higher than in energy intensive large companies. SMEs have a large potential to improve their environmental performance. However, this room for improvement is not effectively addressed by conventional Chinese regulation. Voluntary PPPs will have a bridge and support function to accelerate the process of achieving ambitious environmental and energy saving results, as existing regulation standards can be met relatively easily by most SME companies.

OBJECTIVES

The project aimed at scaling up SCP practices by facilitating voluntary public private partnerships throughout China and thereby contributing significantly to the mitigation of climate change.

OUTCOMES

- Developed, tested and published VA manual, which is now a key technical guideline for China adopting voluntary publicprivate partnership (PPP) in energy saving and emission reduction;
- 960 voluntary agreements (Vas) have been signed and are being implemented in the cities of Nanjing, Jingzhou and Changchun;
- Inclusion of VA in local environmental policies in the three cities;
- Implementation of the VAs has resulted in energy saving of about 200 PJ (target was 100 PJ), water saving of 180 million tonnes (target was 50 million tonnes), and reduction of CO₂ emission of at least 17 Mtonnes annually.

”

Discourse management is a cheap SCP and innovation catalyst for successfully implementing public-private partnerships (PPP). Valuing PPP knowledge will result in large energy savings and emission reductions far beyond business as usual, policy framing and strengthening a financial enabling environment for achieving sustainable economic growth in China.

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Nanjing Commerce and Trade Bureau (NJCTB)

Nanjing Environmental Protection Bureau (NJEPB)

Nanjing Laundry and Dyeing Industrial Association (NJLDIA)



SCAN FOR MORE PROJECT

INFORMATION

ACMFN - Asian Cleantech MSME Financing Network

📍 CHINA, INDIA, INDONESIA ● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2016-12/2020
BUDGET: EUR 1,872,565 (EU Contribution: 80%)



CHALLENGE

The biggest challenge remains eliciting the interest of MSMEs in shifting to clean technology (cleantech), as well as those involved in the value chain. The MSMEs perceive cleantech as costly, and if they appreciate the return on investment of such project, it may take some time to recover. Improved understanding of cleantech would be important. However, lack of financial literacy and transparency by the MSMEs are also major issues on the demand side, which hamper further commitments by financial institutions which themselves lack awareness, technical capabilities as well as tailored financial products and co-investment opportunities.

OBJECTIVES

The project seeks to build and leverage a cleantech-financing ecosystem to spark improved access to finance for Asian cleantech MSMEs in order to enhance sustainable consumption and production (SCP) patterns in Asia. The project aims at enhancing the cleantech value chains and access to finance for MSMEs as well as the availability of cleantech-financing products by working with financial institutions (FIs).

OUTCOMES

- Promoting cleantech innovation among 1,500 MSMEs and building the capacity of 400 MSMEs from high impact sectors in the target countries;
- Developing training and guidance materials, or a "Cleantech Innovation Toolbox," which will be available to all participating MSMEs;
- Creating a pool of trainers which will form sector specific advisory groups and provide follow-up support to the MSMEs;
- Providing financing advisory services to the selected 200 MSMEs;
- Establishing national matchmaking fora between MSMEs and FIs to facilitate the investment process and to build up new investment channels;
- Linking up with other existing initiatives or platforms, e.g. Sankalp Forum in India, CTI-PFAN, UNEP FI, or ADB's Clean Energy Forum;
- Creating awareness and knowledge among FIs by building their capacities to better understand the cleantech market potentials and to appraise these under a risk-mitigated environment;
- Organising regional marketplace conference to foster matchmaking, co-investing and risk-sharing between cleantech investors and investees.

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Confederation of Indian Industry (CII)

The Association for Advancement of Small Business (PUPUK)



SCAN FOR MORE PROJECT
INFORMATION

PROSPECT INDONESIA - Promoting eco-friendly Indonesian rattan products

INDONESIA • MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2013-1/2017
BUDGET: EUR 2,190,237.80 (EU Contribution: 80%)



CHALLENGE

Rattan is one of the most important non-wood forest products (NWFPs) in international trade and contributes to 5.5% of Indonesia's national revenue of forest products. As part of forest management and conservation, about 1 million tonnes of raw rattan is collected annually, out of which 90% comes from natural forests and the remainder from rattan cultivation. Harvesting rattan reduces illegal logging as villagers living near forests have other sources of income from rattan. Indonesia is the largest producer of rattan in the world contributing around 85% of the global market. However, conventional methods in collecting rattan can jeopardise forest conservation. Rattan manufacturers use harmful dyes that pollute the environment and use energy inefficiently. Overexploitation of rattan is partly due to weak

legislation, poor law enforcement, limited public awareness, and lack of coordination among actors within the rattan supply chain.

OBJECTIVES

The project aimed at contributing towards the development of sustainable production and consumption (SCP) practices in the rattan value chain in Indonesia, including promoting responsible collection of rattan and enhancing environmental protection. Specific objectives included:

- To promote sustainable production, processing and utilisation of rattan products;
- To increase awareness, capacity and collaboration among stakeholders in the rattan value chain;

- To improve learning, application and replication of best practice in the rattan sector.

OUTCOMES

- Establishing or strengthening associations for farmers/ collectors in the three targeted rattan producing areas and strengthening existing production associations;
- Conducting training in rattan cultivation through creation of three demonstration sites in rattan-producing areas;
- Strengthening linkages in rattan value chain and building mutually beneficial business partnerships;
- Providing capacity building on sustainable rattan production for workers and managers in production centers;
- Conducting targeted communications activities to educate consumers and stakeholders about the benefits of using ecofriendly rattan products.

”

This project has encouraged sustainable rattan cultivation and harvesting methods, and sustainable processing of raw materials to produce furniture and crafts. 2,050 farmers have been supported to produce 4,650 tonnes of eco-friendly rattan annually.

Listoman Tanjung
Director
PUPUK



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SCAN FOR MORE PROJECT
INFORMATION

Timber Indonesia - Promoting the implementation of Timber Legality Assurance (FLEGT License) as a key step to sustainable production and consumption in Indonesia's wood processing industry

INDONESIA

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 2/2013-7/2016
BUDGET: EUR 1,396,626 (EU Contribution: 78.15%)



CHALLENGE

Indonesia is home to the world's third-largest tropical rainforest area, making up 10% of the world's forest cover. Yet the forests are disappearing at an alarming rate – 1.4 million hectares of natural forests were cleared annually between 2000 and 2010, some legally and some illegally, for both domestic use and export. In the last few years, the government has taken steps to address forest governance and to promote sustainable forestry by entering into a Forest Law Enforcement, Governance and Trade (FLEGT) Voluntary Partnership Agreement (VPA) with the European Union (EU). The Timber Legality Assurance System (TLAS), also known as Sistem Verifikasi Legalitas Kayu (SVLK), is the basis for the

VPA in Indonesia and is now used to certify that timber from Indo-nesian forests and industries is legally sourced. Incentives were previously insufficient to encourage small and medium-sized enterprises (SMEs) to invest fully in the sustainable consumption and production (SCP) of wood products.

OBJECTIVES

The project focused on Indonesia's wood processing sector and worked with Indonesia's Furniture and Handicraft Trade Association (ASMINDO) to support wood-processing SMEs to adhere to domestic and international market regulations on timber legality, with a view to

encouraging further SCP improvements. Specific objectives included:

- By 2025, SCP to predominate as best practice in forest product markets worldwide, safeguarding forest value and supporting poverty reduction within the context of sustainable development;
- By 2015, 30 SMEs in Indonesia's wood processing sector to have delivered legally-verified timber products to national and international markets, supported by the procurement policies for national government departments;
- By 2015, 300+ SMEs to have shifted to producing increasing amounts of confirmed FLEGT licensed timber from a known source, through a series of capacity building steps and assessments.

OUTCOMES

- Undertook Timber Legality Assurance System (TLAS) and Chain of Custody (CoC) verification of the core group of 30 SMEs to increase trade of certified wood products;
- Reached out to and built the capacity of 300 wood processing SMEs and later to 2,500 SMEs;
- Created showcase of successful take-up of TLAS verification by SMEs;
- Distributed promotional materials on certification to all SME members of ASMINDO;
- Conducted TV advertising campaign for general public and media awareness raising trips for journalists;
- Linked up with public procurer for purchasing of legal and responsibly sourced timber from SMEs.

”

The support provided to community forest SMEs through this project helped make the FLEGT licence a reality between Indonesia and the EU.

Joko Sarjito

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SCAN FOR MORE PROJECT
INFORMATION



BIOMASS SP - Sustainable Production of the Biomass Industries in Malaysia

📍 MALAYSIA • MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2010-1/2014
BUDGET: EUR 2,248,688.37 (EU Contribution: 80%)



CHALLENGE

Malaysia produces a minimum of 168 million tonnes of biomass annually from oil palm, timber, rice, fish processing and other agricultural industries. The promotion of biomass products will spur the green technology sector and help mitigate global climate change. Already, small and medium-sized enterprises (SMEs) are turning this biomass into various value-added products, such as bio-chemicals, bio-fuels, bio-feedstock (raw materials) and bio-resources. However, SMEs still face challenges in the biomass business. They lack access to green financing facilities and do not comply with environmental standards. Raw material is not always available for larger-scale biomass commercialisation projects and proven affordable industrial-scale conversion technologies are not accessible or available for SMEs.

OBJECTIVES

The project aimed to:

- Facilitate Malaysian family-owned SMEs to implement sustainable production models in the biomass industry;
- Improve biomass supply chains in Malaysia by promoting collaboration between industry, research institutions and universities;
- Reduce industrial emissions by improving the production process of biomass commercialisation projects;
- Create an enabling environment for improving policy cohesiveness for developing sustainable production in the biomass industry

OUTCOMES

- Capacity Building and Coaching
- Outreach and Dissemination
- Plans for Policy-makers
- Creation of Industry-wide Network
- Enabling Growth by Linking to Financial Institutions
- Commercialising Biomass Business through a Multi-stakeholder Consultative Approach

”

The Malaysia Biomass Industries Confederation was established by the project to help promote and guide Malaysian biomass SMEs in greener business practice and thereby contribute to the global climate change mitigation agenda.

LEE Jia Jing
Project Manager
MIGHT

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LEAD PARTNER

Malaysian Industry- Government Group for High
Technology (MIGHT)

PARTNERS

Association of Environmental Consultants and
Companies of Malaysia (AECCOM), Malaysia

Danish Technological Institute (DTI), Denmark

European Biomass Industry Association (EUBIA),
Belgium



SCAN FOR MORE PROJECT
INFORMATION

Green Products Development and Labelling

📍 MONGOLIA • MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 12/2009-4/2012
BUDGET: EUR 933,257 (EU Contribution: 80%)



CHALLENGE

Mongolia has a strong history of locally produced goods. But the products have in average poor quality; the manufacturing process often has an inefficient use of resources and little pollution prevention. The constraints for the manufacturers are the lack of experience on improving, manufacturing and marketing their products in line with sustainable product standards, being unfamiliar with the upcoming green label developments in Mongolia. Fast growing of SMEs and manufacturing sectors in Mongolia requires an sustainability approach not only for SMEs but also for policymaking. The manufacturing sectors in terms of resource use and pollution prevention is very often inefficient. Consumers are not aware of green choices. Eco labelling was initiated earlier, but did not succeeded due to inconvenient procedure, lack of awareness and involvement of stakeholders.

OBJECTIVES

This project aims to encourage green products development and eco-labelling for locally produced products in Mongolia in order to reduce negative environmental impacts. It aims to strengthen the Mongolian certification standards and procedures and provide business support network on development and promotion of sustainable products.

OUTCOMES

- 160 companies (222 people), or two times the targeted participants, attended the information and expert training seminars;
- 50 eligible green product applications with 80 companies were selected for further support and for in-depth training;
- Successful Green Products Fairs were organised together with the 'Organic Mongolia' programme with over 10-thousand visitors and registered sales of 30 thousand US-dollars;
- 17 baseline assessments and 6 business plans have been received by the MNCCI. 14 more business development plans were reported to have been received by the Capitron Bank;
- A new version of the Mongolian Eco-label standard was drafted, followed by its translation for the international experts' review.

CONTACT

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LEAD PARTNER

IVAM UvA BV, the Netherlands

PARTNERS

Center for Appropriate Technology (GrAT)
Mongolian Agency for Standardisation and Metrology (MASM)

Mongolian National Chamber of Commerce and Industry (MNCCI)



SCAN FOR MORE PROJECT INFORMATION

GPIOS - Creating Green Philippines Islands of Sustainability

PHILIPPINES

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 11/2009-11/2013

BUDGET: EUR 2,386,970 (EU Contribution: 80%)



CHALLENGE

Manila Bay is the Philippines major economic centre. At the same time it is the country's hot spot for pollution. Manila has been cited by the World Health Organisation as one of the most polluted places in the world. The challenge for Metro Manila and its linked CALABARZON region is great, as the country has a huge energy deficit. The Philippines is heavily dependent on fossil fuel. In addition, the level of law enforcement with regard to environmental regulations among industry is low.

OBJECTIVES

The key objectives of GPIoS are to minimize the environmental impacts caused by SME's in the target region by adopting preventive environmental production and to integrate sustainable growth, social progress and environmental protection with the business of the participating companies.

The main activities include:

- Establishing a GPIoS Training Center
- Training and consulting 500+ companies under Eco Profit programs (Eco Bonus, Eco Focus and Eco Sense)

- Consulting about 180 companies who have already gone through one of the above programs through successive CLUB programs to further improve their eco-performance
- Designing & developing self assessment toolkit based on ECOSENSE approach
- Validating and awarding best performing companies

OUTCOMES

Green Philippines Island of Sustainability envisions:

- Reduced pollution level and to increase resource efficiency levels in specific companies in Metro Manila and its linked region CALABARZON
- Increased awareness and use of environmentally friendly technologies and practices
- Implementation of legal compliance and safety instruments leading to improved resource efficiency and increased working standards in participating SME's
- Improved micro climate of the target region

”

Our champions have taken their learnings from the workshop and applied them in our vision to become a leader in water, waste water and other environmental services to empower people, enhance sustainable development and protect the environment.

Tom Mattison

Operation Support Services Director
Manila Water Company, Inc.

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LEAD PARTNER

Technical University Ostrava (VSB)

PARTNERS

Asia Society for Social Improvement and Sustainable Transformation (ASSIST), The Philippines

Austria Recycling (AREC)

Center for Appropriate Technology (GrAT)

European Chamber of Commerce of the Philippines (ECCP)

Philippine Business for the Environment, Inc. (PBE)



SCAN FOR MORE PROJECT INFORMATION

SMART Cebu - SMEs for Environmental Accountability, Responsibility and Transparency

PHILIPPINES • MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 2/2010-9/2013
BUDGET: EUR 1,223,482 (EU Contribution: 80%)



CHALLENGE

Cebu's home and lifestyle industry had a negative impact on the environment. Energy and raw materials were not being used wisely. Production processes released dust and fumes from sanding, cutting and paint spraying, exposing workers to unhealthy pollution due to inadequate protection. Despite some progress in the supply chain and production of home and lifestyle products, the industry lacked awareness of the principles of sustainable consumption and production. A low compliance with environmental standards and weak commitment towards corporate social responsibility (CSR) prevented SMEs from promoting their products and increasing their access to international markets.

OBJECTIVES

The project aimed to increase the competitiveness of SMEs in the home and lifestyle industries (i.e. furniture, fashion accessories, gifts/ toys/ housewares), and to develop a cleaner environment in Cebu. Specific objectives included:

- Business membership organisations (BMOs) capacitated to promote and channel sustainable consumption and production (SCP) effectively;
- Cleaner and more efficient production of Cebu home and lifestyle products;
- An effective marketing strategy developed to boost sales of Cebu Green products.

OUTCOMES

- SMART Cebu has established itself as the front-liner for advocating the greening of industries in Cebu;
- Government agencies (DTI/DOST) have recognised SMART Cebu as the partner to work with in the promotion of ecofriendly industries and a cleaner Cebu environment;
- Participating companies have improved their designs, products and processes;
- With the experience of SMART Cebu in assisting Cebu home and lifestyle sectors, other sectors like tourism and food are seeking the assistance of SMART Cebu/ECCP. RECP services are now being offered by SMART Cebu to hotels, resorts, restaurants as well as other, ongoing SWITCH-Asia projects;
- The Project has created a pool of trained and accredited RECP experts that could assist in improving resource efficiency and increasing competitiveness;
- The three partner BMOs are back to life, having discovered that "Green Business is Good Business", thus offering new services to their member companies.

”

With the help of SMART Cebu, Bon Ace eco-products were featured at trade shows in Paris and Frankfurt. Our new organisational development plan will make our association more effective in offering the services our member companies need.

Ramir Bonghanoy
President, Bon Ace Fashion Tools and Cebu Gifts Toys and Housewares (GTH)

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LEAD PARTNER

sequa gGmbH

PARTNERS

Association of Development Financing Institutions in Asia and the Pacific (ADFIAP)

Cebu Fashion Accessories Manufacturers and Exporters (FAME)

Cebu Furniture Industries Foundation (CFIF)

Cebu Gifts, Toys and Houseware manufacturers (CEBU-GTH)

EffizienzAgentur (EFA) NRW

European Chamber of Commerce of the Philippines (ECCP)



SCAN FOR MORE PROJECT INFORMATION

BIOTRADE VN - Scaling up of ethical BioTrade initiatives with the pharmaceutical sector in Vietnam

VIETNAM • MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 4/2016-9/2020
BUDGET: EUR 2,063,357 (EU Contribution: 77.54%)



CHALLENGE

Vietnam has a large resource of natural ingredients which can be used as raw materials for the pharmaceutical, cosmetic and food industries. However, the supply is dwindling and Vietnam has to import large volumes of raw materials. Ninety-five percent of traditional Vietnamese remedies rely on this natural resource base with an annual production of up to 40,000 tonnes. A weak regulatory framework on natural resource extraction, combined with ineffective management of natural resources, lack of incentives for smallholders to harvest forest products sustainably, and weak linkages between supply chain actors contribute to the situation.

OBJECTIVES

The project aims at upscaling the sustainable Ethical Biotrade (EBT) business model to the Natural Ingredient (NI) sector and making Vietnam an internationally recognised supplier of NI to phyto pharmaceutical, cosmetic and food supplement industries.

OUTCOMES

- Strengthening a group of leading 12 small and medium-sized phyto-pharmaceutical enterprises to supply national and international markets with EBT products;
- Stimulating national and international consumer demand for BioTrade products from Vietnam;
- Supporting more than 5,000 smallholder farmers and collectors to increase their livelihoods through EBT value chains and stable supplies to EBT enterprises;
- Conducting environmental and energy assessments with the assistance of Vietnam Cleaner Production Center;
- Investments in green and modern equipment/technology;
- Communicating and promoting values and benefits of EBT compliant phyto-pharmaceutical products;
- Monitor Ethical BioTrade standard and share the results with stakeholders;
- Conducting a policy dialogue and enable sustainable growth of the phyto-pharmaceutical sector based on EBT standard.



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Helvetas Vietnam

LEAD PARTNER

Helvetas Intercooperation gGmbH

PARTNERS

Centre for Rural Economy Development (CRED)



SCAN FOR MORE PROJECT
INFORMATION

CSR Vietnam - Helping Vietnamese SMEs adapt and adopt corporate social responsibility

VIETNAM

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 2/2009-4/2013
BUDGET: EUR 2,014,334 (EU Contribution: 80%)



CHALLENGE

Major buyers of Vietnamese products, including transnational corporations (TNC), are tightening their procurement guidelines to comply with Corporate Social Responsibility (CSR) requirements in the fields of environment and labour. Although this will improve labour practices and environmental impact, it can be a serious constraint for many Vietnamese enterprises. Over 90% of the enterprises are small and medium sized enterprises (SMEs) and they do not have sufficient capacity to comply with the strict requirements.

OBJECTIVES

Overall objectives of project are to improve the environmental and social performance of Vietnamese SMEs, enhancing the integration of Vietnamese SMEs into global supply chains through an increased awareness, understanding and adoption of triple-bottom-line (TBL) corporate social responsibility (CSR) thus strengthening cooperation between Europe and Asia.

OUTCOMES

- Awareness and understanding of a triple-bottom-line (TBL) CSR approach among Vietnamese SMEs, consumers and other relevant stakeholders increased.
- Compliance with CSR procurement standards, among Vietnamese SMEs increased
- Policy and regulatory recommendations for promotion of sustainable production practices and behaviour identified through participatory processes

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LEAD PARTNER

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PARTNERS

Directorate for Standards and Quality (STAMEQ), Vietnam

European Chamber of Commerce in Vietnam (EuroCham)

Institute of Labour Science and Social Affairs (ILSSA), Vietnam

National Metal and Materials Technology Centre (MTEC), Thailand

sequa gGmbH

Vietnam Chamber of Commerce (VCCI)

Vietnam Electronics Industry Association (VEIA)

Vietnam Leather and Footwear Association (LEFASO)

Vietnam Textile and Apparel Association (VITAS)



SCAN FOR MORE PROJECT
INFORMATION

Get Green Vietnam

VIETNAM • MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 4/2012-3/2015
BUDGET: EUR 1,368,070 (EU Contribution: 80%)



CHALLENGE

In Vietnam several ongoing projects focus on delivering more sustainable products to both export and local markets. However, the awareness of the local consumers on sustainability is low. It is important to raise consumer awareness to create a demand for such products. The main target groups of the project are middle class consumer groups and office worker groups. After being made aware, trained and educated on the concept with the support from trainers and experts during the project, these consumers are considered change agents towards more sustainable consumption.

OBJECTIVES

The project aims at contributing to an increased share of sustainable consumption by Vietnamese consumers in general. To achieve this, the project aims at increasing the capacity of consumer organisations and government in enabling and supporting consumers to move towards more sustainable consumption behaviour.

OUTCOMES

- Published a guidebook and training toolkit consisting of 75 tips from 8 “daily activity” clusters;
- Train 56 outstanding applicants from relevant organisations on sustainable consumption;
- Trained and equipped 32 trainers with knowledge on sustainable consumption using the GetGreen Vietnam approach, and skills to organise consumer groups and help consumers translate their awareness into actions;
- The project's approach was implemented in two batches, each encompassed 26 consumers groups with 17 groups of office workers, 18 groups of students, 14 groups of communities; equivalent to 1,099 change agents empowered in the cities of Hanoi, Hochiminh City, Da Nang and Can Tho;
- Conducted 16 co-creation sessions involving customers and companies in the food, transportation, and tourism sectors.

”

What makes this project different is that it is the first one to get industry and consumers together to improve products and make them more sustainable. We call that co-creation.

Dr. Marcel Crul

Representative of Delft University of Technology

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LEAD PARTNER

Delft University of Technology, Netherlands

PARTNERS

Asian Institute of Technology Center (AITCV), Vietnam



SCAN FOR MORE PROJECT
INFORMATION

MEET-BIS - Mainstreaming Energy Efficiency through Business Innovation Support

VIETNAM

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 4/2009-9/2013

BUDGET: EUR 1,943,419 (EU Contribution: 80%)



CHALLENGE

Many small and medium-sized enterprises (SMEs) in Vietnam work with outdated and inefficient technology. As energy and water prices escalate, this inefficiency renders a high cost to business, as well as to the environment. Cost-saving technologies that enhance the energy and water efficiency of SMEs exist, but technology suppliers lack knowledge of market opportunities in the SME sector, and staffs are not trained for SME sales. Furthermore, they lack capacity to transform technical solutions into business-smart, costsaving products for SMEs. At the same time, SMEs often are not aware of the benefits of investing in cleaner technology and they lack the capital, or access to finance, to invest in cleaner technology.

OBJECTIVES

The project Mainstreaming Energy Efficiency Through Business Innovation Support (MEET-BIS) promoted sustainable production of urban-based SMEs in Vietnam by ensuring their access to affordable water and energy efficiency technologies.

The specific objectives included:

- To develop eight SME business innovation packages for energy and water efficiency;
- To partner with technology suppliers based in Hanoi to target the SME sector, and building their capacity to address the local market;
- To support financial institutions in developing financial products for SMES;

- To communicate the commercial viability of the technologies to SME managers.

OUTCOMES

- Formal cooperation is established with 11 local technology suppliers. By July 2013, 9 of those suppliers successfully generated sales;
- Some 70 Technology suppliers participated in events or activities of MEET-BIS. A database of approximately 278 local suppliers of energy and water saving products has been created;
- Market research is done on the SME challenges and bottlenecks;
- Research is performed on access to finance for SMEs and potential solutions;
- A toolkit of sales & marketing practices and support packages with tested Vietnamese illustrations is made;
- Energy and water saving technologies have been promoted among 3,852 SMEs. 1364 SMEs showed their interest in EE/WS products & services. 423 SMEs of these SMEs have invested in the technologies;
- Total value of energy and water saving products sold since 2011 is EUR 2.43 million (VND 65.66 billion);
- The reduction of CO₂ emission is an estimate of 9,842,559 kg - CO₂e between the first sales in January 2011 and end of June 2013;
- The present investments in energy and water saving products & services will contribute to mitigating climate change with an estimated annual emission reduction of 9,788,636 kgCO₂e.

“As a small technology supplier of energy efficiency products, we did not have the know-how and capabilities we needed in sales and marketing. The MEET-BIS approach helped us identify new customers, as well as network with other suppliers. We are on the way to becoming an energy service company.

Vu Ngoc Tuyen

Director
Systech Eco

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LEAD PARTNER

ETC Energy, The Netherlands

PARTNERS

AdaPPPt, The Netherlands

AIDEnvironment, The Netherlands

Research Center for Energy and Environment (RCEE),
Vietnam

Vietnam Chamber of Commerce and Industries –
Ha Minh Investment and Business Consultants, Inc.
(VCCI-IBCI)



SCAN FOR MORE PROJECT
INFORMATION

Lead Paint Elimination

📍 BANGLADESH, INDIA,
INDONESIA, NEPAL,
PHILIPPINES, SRI LANKA,
THAILAND

● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2011-6/2015
BUDGET: EUR 1,798,563 (EU Contribution: 77.8%)



CHALLENGE

Lead is a toxic metal, which is why it is banned for use in paints in Europe, the U.S. and Australia. Lead is especially harmful to children as it interferes with the developing brain and for example causes lower IQ, attention deficiency, poor impulse control and aggressive behaviour even at very low exposures. The World Health Organisation (WHO) has stated that there is no safe level of childhood lead exposure. However, in developing countries, lead is still used in paints as pigments and drying agents, and when these paints are then used in homes and schools, lead contaminates the household dust and is ingested by children through hand to mouth contact.

The damage caused during development is irreversible, but entirely preventable. The challenge for this project was to achieve a switch to lead-free paints in Bangladesh, India, Indonesia, Nepal, Philippines, Sri Lanka, and Thailand.

OBJECTIVES

The project aimed to reduce childhood lead poisoning by working to eliminate lead decorative paints in the seven participating countries. This will lead to improved school performance, which in turn will help to battle poverty. In addition, this project helped reduce trade barriers for small and medium-sized paint manufacturers.

OUTCOMES

- Increasing Public Awareness
- Creating Certification and Labelling Programmes
- Providing Capacity Building for SME Paint Manufacturers
- Conducting Policy Dialogues



”

We managed to gain the trust and confidence of the paint companies by showing that we were not just there to fight them and hurt their businesses, but to help them produce non-toxic paints.

Manny Calonzo

Southeast Asia Regional Specialist,
IPEN Asian Lead Paint Elimination Campaign



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LEAD PARTNER

International POPs Elimination Network (IPEN)

PARTNERS

Arnika – Toxics and Waste Programme, Czech Republic

Balifokus, Indonesia

Centre for Environmental Justice (Guarantee) Limited (CEJ), Sri Lanka

Centre for Public Health and Environmental Development (CEPHED), Nepal

Ecological Alert and Recovery Thailand (EARTH)

Ecological Waste Coalition of the Philippines, Inc.

Environmental and Social Development Organisation (ESDO), Bangladesh

ISEAL Alliance, UK

The Just Environment Charitable Trust (Toxics Link), India



SCAN FOR MORE PROJECT
INFORMATION

GPP Bhutan - Scaling-up public demand for sustainable products in Bhutan

📍 BHUTAN

● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2014-7/2017
BUDGET: EUR 2,132,307 (EU contribution: 90%)



CHALLENGE

At the beginning of the project, the Bhutanese public sector had not yet had a cross-cutting strategy for resource efficiency, cleaner production, energy efficiency, decent work and human rights, nor for the integration of the 10th FYP targets on ‘vita-lising industry’, ‘SME strengthening’ or ‘youth employment’. The project met these needs with an overarching strategy, building on the international momentum for using public procurement as a driver of sustainable development, as specified under Sustainable Development Goal 12 on Sustainable Consumption and Production (SCP). Bhutan will embark on a long-term pathway to utilise green public procurement (GPP) as a lever to ‘switch’ towards more sustainable production and consumption patterns.

OBJECTIVES

The project aims to leverage GPP as a powerful up-scaling tool to 1) lower the direct impact of state-consumption, 2) incentivise sustainable production among suppliers, 3) build demandside and supply-side capacity, and 4) trigger private sustainable consumption and green economic transformation.

OUTCOMES

- Establishing ‘soft law’ on GPP in Bhutan;
- Developing dedicated GPP guidance material for public procurers;
- Designing preferential programmes for SMEs and disadvantaged suppliers;
- Designing and facilitating GPP training sessions for public procurers and suppliers;
- Mentoring real-time GPP pilot tenders in selected industrial sectors;
- Providing for long-term GPP implementation by establishing a GPP knowledge platform and curricula.

”

This project has given us the much needed insights and also helped our Committee to discuss and debate on Public Procurement Policy and its process in the Parliament. The National Council has passed a seven points resolution and submitted it to the Royal Government for further action on the Public Procurement Policy and its systems.

Tempa Dorji

Chairperson of the Good Governance Committee of the National Council of Bhutan

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LEAD PARTNER

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PARTNERS

Bhutan Chamber of Commerce and Industry, Bhutan
Collaborating Centre on Sustainable Consumption and Production GGMBH

Royal Institute of Management of Bhutan (RIM)

Royal Society for the Protection of Nature (RSPN), Bhutan



SCAN FOR MORE PROJECT INFORMATION



ACIDLOOP - Sustainable production through market penetration of closed loop technologies in the metal finishing industry



INDIA

● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 2/2012-1/2016

BUDGET: EUR 2,395,069.59 (EU contribution: 80%)



CHALLENGE

Metal finishing operations in India are carried out by SMEs. Operations like degreasing, pickling, galvanic baths use acids and the wastewater is highly polluted. Due to lack of material stream and waste management systems, waste and pollution are major concerns. This also leads to reduced profits.

OBJECTIVES

The project aimed at introducing technology innovation for acid recovery as well as resource efficiency in the Indian metal finishing SMEs that would lead to improved environmental quality and combat pollution.

OUTCOMES

- Conducting resource efficiency(RE) training workshops for SMEs and provided on-site consulting support for implementation of low or no cost RE options;
- Demonstrating acid and rinse water recovery techniques;
- Organising two technology roundtables to facilitate SMEs and technology suppliers to identify measures to improve access of SMEs to RE technologies;
- Financial and other support to SMEs through policy dialogues, customer round tables, technology round tables;
- Sensitising 8 local banks on the potentials of RE technology investments;
- Sharing information of financing options with SMEs;
- Organising three regional and two national policy dialogues;
- Sharing policy recommendations on technology transfer with relevant stakeholders.

”

After implementing the project's recommendations, we now consume 30% less water, and 20-25% less chemicals, significantly increasing our profits.

Anil Patil

Shriram Engineers,
a metal finishing company in Aurangabad

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LEAD PARTNER

The Energy and Resources Institute (TERI)

PARTNERS

adelphi

Asia Society for Social Improvement and Sustainable Transformation (ASSIST), The Philippines

Austria Recycling - Verein zur Förderung von Recycling und Umweltschutz in Österreich (AREC)

Society of Indian Automobile Manufacturers (SIAM),
India

STENUM Asia Sustainable Development Society
(STENUM Asia)

VDEh-Betriebsforschungsinstitut GmbH (BFI)



SCAN FOR MORE PROJECT
INFORMATION

MSME Clusters - Scaling-up sustainable development of MSME Clusters in India

INDIA

● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 5/2012-10/2015
BUDGET: EUR 2,070,491 (EU contribution: 80%)



CHALLENGE

The Indian economy owes a major part of its growth to the 26 million Micro, Small and Medium Enterprises (MSMEs) that provide employment to an estimated 60 million people. 70% of these MSMEs are estimated to be concentrated in around 1100 industrial and 3500 artisanal clusters. A sector mapping (2010) of industrial clusters, identified the foundry sector, having 5500 units in 47 clusters, as an environmentally challenging and highly energy intensive industry. 90% of India's foundry enterprises are micro and small enterprises, which use obsolete and inefficient melting technologies. Despite several initiatives undertaken to address the problems; these initiatives have not been able to reach out to more than 200 enterprises.

OBJECTIVES

The project enabled the adoption of sustainable environment and social business practices across selected foundry MSME clusters. It aimed at scaling up the capacity of business membership organisation, and seeks to introduce aggregate reporting. Furthermore, the project aimed at establishing financial linkages and supports a conducive policy environment.

OUTCOMES

- Fostered sustainable production through technical and nontechnical measures;
- Built capacities of Business Membership Organisations (BMOs) for SCP;
- Introduced and facilitated Aggregate Sustainability Reporting among Cluster MSMEs;
- Enhanced access of MSMEs to credit through stronger linkages with Financial Institutions;
- Undertook policy advocacy and dissemination.

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LEAD PARTNER

Foundation for MSME Clusters (FMC)

PARTNERS

Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ)

Global Reporting Initiative (GRI)

Indian Institute of Corporate Affairs (IICA)

United Nations Industrial Development Organization
(UNIDO)



SCAN FOR MORE PROJECT
INFORMATION

PRO-SUSTAIN - Promoting fair trade and sustainable consumption in India

INDIA

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2010-6/2013
BUDGET: EUR 1,040,076 (EU contribution: 80%)



CHALLENGE

A growing group of middle-class consumers are questioning the 'conventional' manufacturing process. Small-scale farmers and artisans can tap into an export market but a growing interest from the urban middle class and youth gives them an opportunity to escape poverty by selling their products nearer to home. The income profile of these consumers gives this national market good potential. There is no policy directly supporting fair trade or influencing public procurement in favour of fair trade products, but many ministries and government departments are keen to promote it, along with sustainable consumption and consumer rights, and to partner fair trade organisations so that small producer groups can access the market.

OBJECTIVES

The project aimed at creating a consumer market for fair trade products that improves rural livelihoods and stimulates producers to follow environmentally sustainable production practices by converting corporate procurement, by developing a retail channel for fair trade and by promoting a common message for fair trade and popularising the products to consumers.

OUTCOMES

- Raised awareness of fair-trade products among consumers;
- Converted corporate procurement to fair trade;
- A dedicated retail channel for fair trade has been developed through creation of a commonly-branded network of shops for the members of the Fair Trade Forum – India;
- Access for fair-trade certified products in mainstream retail channels was gained;
- Secured commitments/tap opportunities from government ministries and other agencies to promote fair trade.

”

Sustainable living should ensure social equity, economic viability and environment stewardship. Fair trade organisations should convert environmental and sustainability considerations into competitive advantage while making products affordable to conscious consumers.

T. Muralidharan
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HiVOS

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LEAD PARTNER

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PARTNERS

Fair Trade Forum – India (FTF-I), India
International Resources for Fairer Trade (IRFT), India
Shop for Change (SFC), India (associate partner)



SCAN FOR MORE PROJECT
INFORMATION



SWITCHing India's Consumption to Fair and Sustainable Goods



INDIA

● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2018-12/2021

BUDGET: EUR 1,094,396.37 (EU contribution 80%)



CHALLENGE

India's strong economic growth has enabled millions to come out of poverty, but still about one-third of the world's poor live in India. Thus to achieve SDG1 (end poverty by 2030) India remains a key focus. The growing urban-rural divide shows that there is a disconnect between the prosperity and lifestyle of the upper and middle income urban Indians vs. the life of the rural farming communities. This is further highlighted through the continuous stream of farmer suicides in India which has increased to over 300,000 suicides since 1995. In 2015, research by Globescan found that 78% of urban Indian consumers interviewed believe that they can change things by choosing to shop ethically and sustainably, 82% of Indian consumers admired companies that lead in being ethical and sustainable. However, respondents also cited major challenges in translating this

intent into switching to more sustainable consumption. While many Urban Indian consumers want to shop ethically and sustainably, 75% of the respondents to the Globescan 2015 survey said that they find it hard to find products which are good for the society and environment. Further barriers for sustainable consumption are: lack of awareness and information on SCP; accessibility and convenience of availability of sustainably produced products; lack of choice and affordability. Building on its experience in business and consumer engagement on sustainability in India and learning from related experiences from Europe, the Centre for Social Markets (CSM) along with Fairtrade Foundation India (FFI) will empower consumers and enable informed choices by raising awareness about the power of their purchases as well as by increasing availability and visibility of sustainable products.

OBJECTIVES

The project's overall objective is to contribute to sustainable development and poverty reduction in India through greater sustainable consumption. More specifically, the project aims to:

- Educate and engage consumers in urban India with the concept of sustainability - particularly related to food and fashion;
- Develop a network and active eco-system of institutions and partners including government agencies who promote sustainable consumption and procurement in India;
- Engage businesses and organisations to produce more sustainable and fair products by switching to Sustainable/Fairtrade supply chains, thus making sustainable products more accessible to Indian consumers.

WAY FORWARD

- Increased awareness of sustainable consumption choices in urban centres;
- Increased stakeholder engagement in SCP at educational, local and higher government levels, as well as in the private sector;
- Increased access to sustainably produced products in the Indian market and greater sustainability-led market linkages among Asian countries catering to Indian consumers. Inform wider stakeholder network about the approaches to waste prevention.



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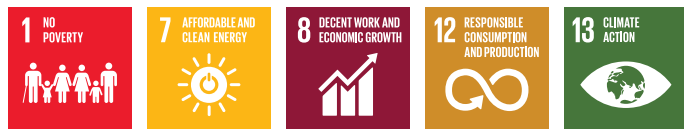
Fairtrade Foundation, India

Max Havelaar France Association, France

Transfair EV, Germany



SCAN FOR MORE PROJECT INFORMATION



Bioenergy

NEPAL

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2014-12/2017
BUDGET: EUR 1,970,703 (EU contribution: 90%)



CHALLENGE

Nepal's overall energy requirement for both domestic and industrial purposes increased substantially following rapid urbanisation and expansion of businesses, such as brick industries, hotels and restaurants. Unfortunately, these industries have relied heavily on imported fossil fuels (e.g. coal, LPG, kerosene, etc.), in spite of substantial increases in their prices. Fossil fuels cover more than 80% of Nepal's imports, with approximately 10 billion tons of coal imported from India every year. Use of these fossil fuels also increases the emissions of greenhouse gases such as CO₂. In addition, Nepal has witnessed an increasing number of forest fires due to the lack of responsible forest management. This has exacerbated existing environmental issues.

OBJECTIVES

The project contributed to Nepal's national poverty reduction and reduction of carbon emissions via up-scaling the production and industrial consumption of bioenergy. Specific objectives included:

- Increasing production and industrial consumption of bio-energy to meet the rising energy demand replacing environmentally hazardous fossil fuels;
- Increasing opportunities to create additional local employment through charcoal value chain;
- Reducing carbon emissions by reducing the import of kerosene and LPG;
- Improving sustainable forest management to help reduce fire hazards.

OUTCOMES

- NRs. 500 million worth of transactions took place in the charcoal value chain;
- 589 enterprises were established and succeeded in producing 10,470 MT bio-charcoal by using 52,350 MT biomass from 111 community forests. The baseline study on biomass showed that the estimated mean shrub biomass in Cluster-1 (hill districts) was 6.37 MT/hectare, which was 12.87 MT/hectare in Cluster-2 (terai districts);
- NRs. 2,308,440 was provided as support (grant) by organisations as a result of the Bioenergy Project efforts. In addition, NRs. 10,634,080 worth of loans were facilitated by BDSPs, and NRs. 757,480 were provided by different cooperatives for buying charring kilns to start charcoal enterprises;
- The Bio-energy Entrepreneurs Association Nepal (BEAN) has been registered at the national level for conducting policy dialogues and creating an enabling environment to promote charcoal enterprises;
- 37 manufacturers/fabricators (two in Sindhupalchowk, one in Kavreplanchowk, three in Nuwakot, three in Dhadhing, five in Kailali, two in Bardiya, three in Banke, six in Kathmandu, six in Bhaktapur and six in Lalitpur districts) have been identified;
- The annual rate of charcoal production increased by 213% by 2017;
- The total charcoal production in 2014 was 111.26 MT; in 2015 it was 245 MT; in 2016 it was 2,449 MT; and 7,665 MT in 2017, supported by the Bioenergy Project.

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This project not only contributed to responsible forest management, but also to reducing carbon emissions and creating new enterprises and job opportunities, particularly for marginalised and disadvantaged groups, including single women, Dalit, janjati, among others.

Kripa Ram Rana
Constituent Assembly Member



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International Union for Conservation of Nature and Natural Resources (IUCN)

Sustainable Technology Adaptive Research & Implementation Center / Nepal (STARIC/N)

Winrock International (WI)



SCAN FOR MORE PROJECT
INFORMATION

Lokta Handmade Paper

NEPAL

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2009-12/2011
BUDGET: EUR 1,400,004 (EU contribution: 90%)



CHALLENGE

Handmade paper is a traditional craft in Nepal, produced by SMEs in the rural mountain regions, using a local plant called lokta. The major part of the population has very limited resources and employment possibilities. The sector has a significant economic and poverty reduction potential given that 90% of the handmade paper and products produced in Nepal are exported. The inefficient resource extraction and production processes, however, do not allow farmers and entrepreneurs to exploit the full economic potential.

OBJECTIVES

The project sought to improve the extracting method of the lokta plant, to increase the efficiency of and reduce the pollution from paper making, to strengthen the capacity of Nepal Handmade Paper Association and to further develop the European market.

OUTCOMES

- Cost efficiency of the hand-made paper and products increased;
- Social and environmental challenges associated with the paper production addressed;
- Lokta cutting and forest management training conducted – 1,195 lokta cutters benefited from the training;
- Paper making training organized – 727 paper makers benefitted;
- Training on waste water management conducted – 30 entrepreneurs were trained to use waste water to clean up a polluted environment;
- Analysis for marketing approach of Lokta paper finalised.

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SCAN FOR MORE PROJECT
INFORMATION

PPP4Gs - Public-Private Partnerships in Green SMEs, Green City, Green Agro Products, and Green Employment

NEPAL

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 2/2014-1/2018

BUDGET: EUR 982,577 (EU contribution: 90%)



CHALLENGE

Prior to the project, research indicated that less than half of solid waste in Nepal was collected. In rural areas, additional complications drove these numbers higher and created additional health risks. With scattered settlements and difficult land terrain, sustainable solid waste management was a challenge to the Ilam Municipality (IM), one of four urban municipalities of Ilam District in eastern Nepal. Before the project's intervention, IM collected both degradable and non-degradable waste, and dumped it into landfill sites. This led to poor and unplanned solid waste collection and disposal; an issue common across Nepal, where many municipalities face both

technical and financial constraints leading to unsustainable practices.

OBJECTIVES

The PPP4Gs project promoted a sustainable commerciallydriven, environmentally-friendly cycle of municipal solid waste management in Ilam. It also showcased best practices that can be replicated in difficult geographic areas, such as remote rural areas, topographically challenging terrains and unconnected urban settlements. In addition to promoting municipal solid waste management in PPP through SMEs, the project had several specific objectives:

- Collecting, processing and selling 175 metric tonnes/year of segregated recyclable material via recycling SMEs;
- Converting 110 Metric tonnes/year of segregated biodegradable waste to compost and selling the materials through private operators;
- Generating NPR 3 million in annual revenue through the sale of recyclable and compost materials. • Generating 1,000 green jobs and benefiting 5,000 individuals.

OUTCOMES

- Ilam municipality residents and locals were mobilised in 111 TLOs covering all wards of the municipality. This resulted in improved source segregation of waste and more organised and sustainable waste collection services through proper schedules and route setting;
- Three exposure site visits took place during which, project partners and local stakeholders explored ongoing similar activities in other locations, exchanged lessons learned and acquired new knowledge;
- Four Central Project Advisory Committee (CPAC) meetings were organised. These enhanced coordination between line ministries, project partners and local stakeholders, thereby helping to resolve issues and challenges faced during the project implementation;
- A compost plan facility was established as a result of the investment provided by IM and the private sector. The facility is estimated to produce 15-tonnes of compost per year from 30 tonnes of degradable waste collected in IM;
- Four agro groups were established and registered. The SMEs were able to commercially market their product and also secure facilities and support from the government after their registration. • Approximately 300 farmers were involved in these groups and 1,500 individuals benefitted.

”

My joy knows no boundaries as my efforts have been recognised by this project. This has given me the motivation to work harder to generate more employment opportunities and contribute to sustainable waste management.

Ram Bahadur Gurung

Local citizen impacted by PPP4Gs

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Namsaling Community Development Centre (NCDC)

Positive Planet



SCAN FOR MORE PROJECT INFORMATION



Water Stewardship Pakistan (WSP)

PAKISTAN

MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 1/2013-12/2015
BUDGET: EUR 815,688 (EU contribution: 80%)



CHALLENGE

Pakistan is a water-stressed country and unsustainable water use, and poor water management and governance practice cause increasing water scarcity. In Lahore, where the project focused, extensive unsustainable groundwater withdrawal for domestic and industrial use, coupled with low recharge rates, has already caused groundwater levels to drop significantly. In 1960, the water table in Lahore sat 5 metres below the surface, currently the water table is over 40 metres deep. Total water availability at the basin level is further reduced by pollution, commonly from untreated industrial effluent. Water scarcity also has serious implications for the sustainability of SMEs and the industrial sector as a whole, for both direct operations and supply chains.

OBJECTIVES

The objective of the project was that by 2025 water efficient production and consumption would predominate as best practice in Pakistan's major industrial cities, contributing to improved environmental sustainability and poverty reduction within the context of sustainable development. Specific project objectives were:

- To promote Better Water Management Practices (BWMPs) among 300 processing and manufacturing SMEs in the target area;
- To increase water management capacity of 75 SMEs with high water usage;
- To establish BWMP implementation in 25 SMEs;
- To establish a multi-stakeholder water partnership on a city-wide level.

OUTCOMES

- Implemented water and pollution reduction through BWMPs. In total, the project instigated an annual capital investment of EUR 1.03 million for the implementation of BWMPs in 35 SMEs resulting in annual economic savings of EUR 1.52 million;
- Established cooperation with many key stakeholders, i.e. various governmental institutions such as Environmental Protection Department (EPD) and Punjab Irrigation and Drainage Authority (PIDA); chamber of commerce (Lahore, Sialkot, Faisalabad, Karachi); industrial associations such as All Pakistan Textile Processing Mills Association (APTPMA) and Pakistan Tanneries Association (PTA); and multinational corporations such as Nestle Pakistan, Coca Cola Pakistan, and Levi's;
- Established multi-stakeholder city-wide partnership with a steering committee;
- Developed a business case which is being used as an instrument to encourage SMEs on a wider scale to adopt BWMPs;
- Developed guidelines for industrial sector to improve water efficiency and reduce the use of chemicals.

”

Water is everybody's business regardless of the sector one works in. Especially for South and East Asia, it is the backbone of the economy and fundamental to agriculture, industry and ecosystems.

Ali Hasnain Sayed
Project Manager
WWF-Pakistan

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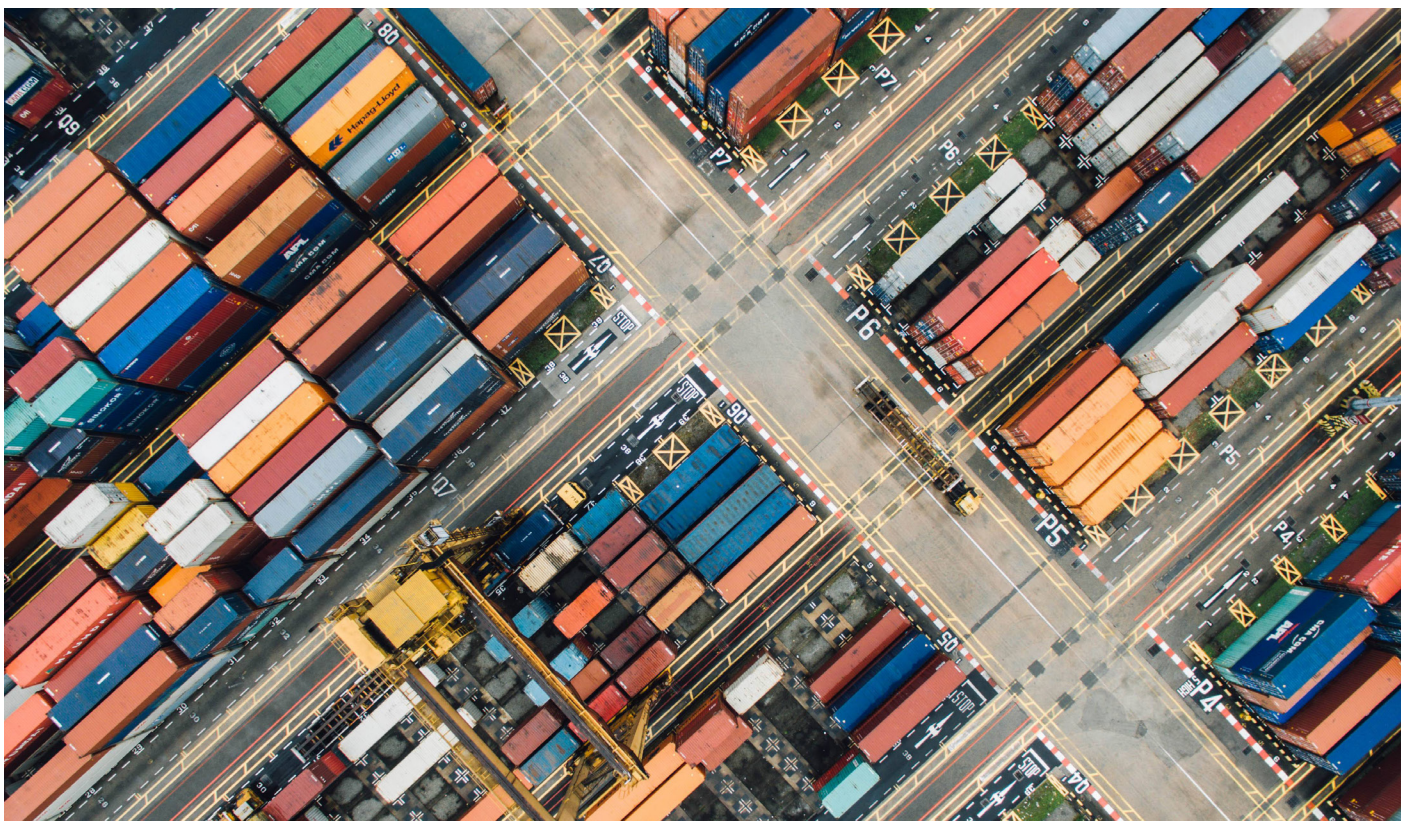


EEPEX - Enhancing Environmental Performance in Key Sri Lankan Export Sectors

📍 SRI LANKA

● MULTI-INDUSTRY

IMPLEMENTATION PERIOD: 3/2009-9/2011
BUDGET: EUR 1,588,538 (EU contribution: 80%)



CHALLENGE

Poor environmental performance amongst enterprises in key Sri Lankan export sectors hamper business across the value chain. Entrepreneurs lack awareness, technical know-how and cost effective solutions for sustainable production patterns. The poor environmental performance is due to the lack of environmental performance data and weak enforcement of environmental laws.

OBJECTIVES

The project sought to reduce the negative environmental impact of major polluting export sectors in Sri Lanka across the industry value chains through the introduction of sustainable production practices and technologies.

OUTCOMES

- Framework for data gathering of industry data developed;
- Awareness creation of sustainable production amongst industry staff across Sri Lanka;
- 250 enterprises involved in project through completion of baseline survey;
- Mapping of value chains and bench-mark studies concluded;
- Draft sector wide analysis of ceramics sector completed;
- Training for company staff as part of a sustainable action plan for each enterprise;
- Action plans for target sectors progressed;
- Awareness of project amongst waste management companies, commitment from waste management companies towards waste management network.

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