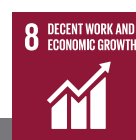


IMPACT SHEET: Promote Bamboo MSME Clusters for Sustainable Development

Promoting bamboo as a sustainable resource and generating green jobs



Helping 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.



PROJECT BACKGROUND

India is the second largest bamboo producing country in Asia, covering an area of four million hectare with 136 species. However, bamboo is still substantively used for making locally used woven items or in scaffolding, both being low value-added products. On the other hand, China, the largest producer of bamboo, is producing a variety of products including: bamboo shoots, woven and non-woven bamboo products, bamboo boards, bamboo flooring, daily kitchen ware, furniture, fibre products, charcoal and beverages, bamboo-based paper, among others. With such a diversified range of value adding options, in China, the bamboo sector supports employment of an estimated 10 million people, against 1 million (full-time employment) in India. It also contributes to China's GDP by almost 10 times that of Indian bamboo-based output.¹ This EU Funded SWITCH-Asia project contributed to addressing the gaps in the bamboo sector at micro, meso and macro level, through a multi-stakeholder partnership and active collaboration with policy makers. The project was implemented in nine states in India, namely Jharkhand, Madhya Pradesh, Chhattisgarh, Odisha, Tripura, Assam, Mizoran, Meghalaya and Arunachal Pradesh.

CHALLENGE

The four main challenges tackled by the project are: the lack of awareness and capacities of bamboo-based micro, small and medium enterprises (MSMEs); limited supply chain linkages of the bamboo based MSMEs and target markets; weak local organisational capacities, including lack of support from stakeholders such as business development service providers (BDSPs) and other forward and backward linkage providers; and limited access to finance. The project has demonstrated success of integrated local development models by strengthening the capacities of key stakeholder groups across the value chains, extending primarily to the national markets. The knowledge and capacities of local financial institutions were strengthened to promote financing. Finally, the project engaged with policy makers and development institutions to build and replicate integrated and inclusive models of local development.

PROJECT OBJECTIVES

The overall objective of this project is to promote bamboo as a sustainable resource and generate green jobs. Activities have been 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.

Specific objectives include:

- Promote enterprise development for sustainable supply of bamboo products and generate improved livelihoods;

- Promote selected new bamboo products among high potential buyers;
- Sustain and upscale local initiatives through community-led multi-stakeholder development models;
- Promote sustainable linkages between financial institutions and local enterprises;
- Strengthen policy dialogue and disseminate proven development models relevant for the bamboo sector.

TARGET GROUPS

- Primary processor micro enterprises (MEs)
- Secondary processor SME factories
- Bamboo harvesters
- Public and private sector buyers
- Equipment and other input suppliers
- Business Development Service Providers (BDSPs)
- Banks and Financial Institutions (FIs)
- 200 policy makers

PROJECT ACTIVITIES

- Enterprise development and capacity building
- Promotion of bamboo products among high potential consumers
- Sustaining and upscaling local initiatives
- Creating sustainable linkages between FIs and local enterprises
- Strengthening policy dialogue and disseminating proven development models

PROJECT ACHIEVEMENTS

- **Enterprise Development:** Supported nine Facilitating Agencies (FAs), delivered training, preparation, awareness-raising and e-learning modules on how to upgrade bamboo-based products; provided technical, managerial and financial inputs to 3764 primary processors in the nine clusters, and provision of OHS inputs to 3512 workers.
- **Promote Bamboo Products Among High Potential Consumers:** Market and market need assessment study conducted, 9 physical incubators were set up, identified and incubated 70 start-ups in new areas, organised linkages with 61 potential public and private buyers.

¹ Trade Overview 2018- Bamboo and Rattan Commodities in China

- **Sustain and Upscale Local Initiatives:** Organised four structured training programmes for FAs, identified 84 strategic BDS providers and created linkages for delivering services to MSMEs and create a pool of 136 local BDSPs. Organised 68 Producer Networks (PNs) and provided techno managerial support to setup/revive and manage 15 CFCs, identified and built capacities of 34 equipment/ inputs suppliers.
- **Sustainable Linkages Between FIs and Local Enterprises:** Created 22 model business plans for MSMEs in nine clusters, sensitised and trained 832 local bankers from 54 FIs on Bamboo MSME financing, created financial linkages for 1981 MSMEs with FIs and public schemes, explored and sought international banks' credit lines for enabling offtake of SCP financial products.
- **Strengthen Policy Dialogue and Disseminate Proven Development Models:** Organised 18 regional multi-stakeholder consultation workshops, two national and one international workshop to disseminate policy learnings, and one training programme for SAARC countries. Prepared four learning papers for policy uptake on financing, gender, governance and value chains and skills. Participated in national and international fora for dissemination of learnings.

LESSONS LEARNED

With the outbreak of COVID-19, the Government of India imposed a nationwide lockdown till the end of July 2020. In many states, the strict travel guidelines and movement restrictions, especially in Containment Zones, prevented the project team to move freely and conduct scheduled training programmes and promotional activities. International missions and knowledge exchange events with Chinese, Vietnamese and Taiwanese bamboo artisans were also cancelled during this period. Other challenges faced during the project included artisans' hesitation in designing new products without the guarantee of pre-orders. They opted for a smaller but secure income, producing their existing products as opposed to high-value products. Moreover, to make sophisticated, high end bamboo products, appropriate tools and equipment are required. However, there is a limited number of suppliers of such items.

The team improvised the provision of inputs to the artisans using IT and online audio-visual tools. Artisans were provided with trainings on use of moulds in addition to other inputs on design upgradation, prototype development, financial literacy, etc.

To promote enterprise development for sustainable supply of bamboo products, generate improved livelihoods, and scale up local initiatives, India would need a long-term strategy and an integrated approach at State and national levels. The three important pillars of Policy, R&D and Connection with industry need to be integrated and the Bamboo sector requires formalisation. Taking into account that Bamboo has the potential of creating 2.5 Million jobs in next 10 years, a National Bamboo Expert Group has been tasked, gathering Bamboo entrepreneurs,

implementing agencies (FMC, INBAR ETC), key officials from State Bamboo Missions and development experts. This Group could be tasked to make recommendations for key policy changes in India, including financing schemes and products, tax/ subsidy incentives, and suggest a road map for the development of the bamboo industry. Moreover, the Bamboo Industry generates a waste of about 60% of raw material. Proper usage of this waste should be built into Bamboo developmental plans. As a first attempt, the FMC has prepared a note on "Bamboo Sector's 10-Year Growth Plan for India". At the project level, it would be ideal to include a commercial, big buyers as project partners from the initial stage in order to ensure appropriate market inputs. Supply Chain Management is an important and critical component which requires specific focus. Future interventions should aim to create about 100 modern bamboo enterprises with end to end facilities for making high-end export quality bamboo products, and set demonstrations for artisans.





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Bamboo is the key to achieving India's commitment of becoming "Net Zero" by 2070. It can create 2.5 million additional green jobs in the country in the next 10 years. The implementation of different business applications requires specific plans for every subsector because of the unique requirements of products, markets, technologies, capital investment, credit needs, marketing channels, challenges and stakeholder variations. In the future we will require coordination among different public and private sector stakeholders in South East Asia.



Long-term project sustainability

The project ensured sustainability by creating high replication potential through multi-stakeholder initiatives, creating linkages with banks and financial institutions, strengthening local governance systems, building supply chain partnerships and creating a cadre of local business development service providers (BDSPs). The technical and business skills of the artisans, small firms and other actors such as bankers, service providers, machine and tool suppliers, have improved through skilling and exposure interventions. Many artisans (primarily women) gained skills and graduated into marketing roles and leadership roles at producer networks, Self Help Groups, among others, and are taking decisions to improve their businesses. Most units have been trained in accessing and using credit to expand business activities. In most places, the implementing agency on the ground will continue to support the Bamboo cluster. Two of the FAs viz ESAF (Jharkhand) and TRIBAC (Tripura and Meghalaya) have been formally onboarded by the respective state governments as technical support agencies at the state level. All the FAs are working towards linking the project enterprises with the respective ecosystems of State Rural Livelihood Mission (SRLM) and State Bamboo Missions (SBM). Furthermore, the project interacted closely with several policy makers, including senior level bureaucrats of the national ministries of Rural Development, Agriculture and MSME. As a result, the National Rural Livelihoods Mission (NRLM) which operates under the Ministry of Rural Development, has indicated that they intend to work in about 100 bamboo clusters. Bamboo is one of the value chains identified by the NRLM to create 1 million green jobs for rural women in the next 5 years. The National Bamboo Mission (NBM) under the Ministry of Agriculture has established a technical expert committee on bamboo largely as a result of the facilitation provided by this project. FMC is under discussion with both agencies to be onboarded as a national resource organisation/technical support agency for bamboo. The techno-commercial study being prepared by the NITI Aayog, which is at its final stage, will hopefully provide a conducive policy environment for the bamboo sector to further grow. In short, an eco-system of support has been created at the local, regional and national levels to ensure sustainability, replicability and up scalability of the project interventions.

Project contributions to Climate Change Mitigation and SDGs

Bamboo is one of the most sustainable and versatile materials that can be used for various purposes, including construction, artifacts, flooring, home décor, among others. While it is one of the most sustainable raw-materials on the market, it is still only chosen by a limited number of environment and sustainability conscious consumers in India. The project has demonstrated that bamboo as a product has a huge potential in reducing GHG emissions, increasing forest areas (Quick Replenishment) and reducing pollution. Through advocacy efforts, policy makers now recognise that increasing the use of bamboo will help reduce consumers' reliance on unsustainable products and raw materials. Through project activities, carbon emissions have been reduced by approximately 5138 tonnes. With bamboo-based green job creation being embedded in the government's biggest livelihood creation programme, the contribution to climate change mitigation and poverty alleviation (SDG 1) is expected to notably grow in the next 3 to 5 years, thus reducing income inequalities (SDG 10). The project has also directly contributed to the attainment of SDG 12, to ensure sustainable consumption and production patterns, by promoting an alternative, profitable and renewable input for a range of users including the construction and lifestyle sectors.

The project has contributed to the attainment of Sustainable Development Goals (SDGs) 5, 8, and 12. SDG 5: Achieve gender equality and empower all women and girls – by enabling women to work decently and in managerial positions in rural industries and access financial services (though not via land ownership or law reform as this SDG foresees). SDG 8: Foster sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all – through support to entrepreneurship, creativity and innovation (target 8.3.), resource efficiency and the prevention of environmental degradation (target 8.4.), a safer working environment through the promotion of Occupational Health and Safety (target 8.8) and access to financial services (8.10).

Impacts at a Glance

Economic Impact	<ul style="list-style-type: none"> • Market generated worth Euro 3.5 million • 6178 additional green jobs created • 100% income increase generated
Environmental Impact	<ul style="list-style-type: none"> • 5138 tonnes of carbon emission reduced by replacement of unsustainable raw materials. • 100% expansion of green product portfolio (High end artifacts, Bamboo tree guards, bamboo gazebos, bamboo construction, bamboo tiles, high end bamboo furniture, high end handicraft items, bamboo lampshades, bamboo bottles, bamboo fuel, bamboo packaging material, etc.)
Social Impact	<ul style="list-style-type: none"> • 50% income increase generated • Over 80% of enterprises supported/created are headed by women. • 67% of new green jobs created have women employees. • Around 60% women were provided OHS inputs. • Measures introduced: ergonomically designed stool and table, health insurance, movement and motion therapy, techniques for ensuring mental health, mindfulness.
Green Finance	<ul style="list-style-type: none"> • 54 Financial Institutions engaged with • 1981 SMEs benefitting from better access to finance • 3.34 million euro financing, including 2.4 million euro in loans leveraged for SMEs • 22 model business plans to educate bankers about feasibility of bamboo enterprises so that they start acting as mentors for future entrepreneurs.
Target Group Engagement	<ul style="list-style-type: none"> • Approximately 5000 SMEs engaged in project activities • Around 10,000 stakeholders involved, including bamboo enterprises, artisans, banks, MFIs, SBMs, NBM, SRLMs, NRLM, State governments, three central ministries, SFURTI scheme of central government, NGOs, Technology Institutions, Design Institutions, Agri Research Institutions, India Bamboo Forum • Establishment of buying hubs led by market players at the national / regional level, linking these buying hubs with trained artisans and bamboo MSMEs, linking artisans and MSMEs with financial institutions to ensure more capital, providing design inputs for contemporary markets, linking clusters with strategic and local BDSPs, supporting bamboo CFCs for introducing production efficiencies leading to higher productivity.
Policy Development	<ul style="list-style-type: none"> • Policy changes/new regulations contributed to: Inclusion of Bamboo for green fuel and co-firing in coal based furnaces • Inclusion of bamboo construction pricing in all government schedule of rates • A ten year bamboo sector development perspective plan • Increasing public procurement of bamboo products.
Europe-Asia Cooperation	<ul style="list-style-type: none"> • Market Need Assessment of EU conducted by Copenhagen Business School, • Value chain enhancement curriculum, a case study, teaching notes developed by CBS and circulated in around 150 top management institutes of Europe. • Sustainable Bamboo Sourcing Webinar conducted in collaboration with Copenhagen Business School, attended by big buyers from Nordic countries as well as farm and non-farm Mission Managers from NRLM.



FUNDING

EUR 2,499,824.00
(EU Contribution: 80%)



DURATION

Jan. 2018 - Oct. 2022



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Small Industries Development Bank of India



Copenhagen Business School
(CBS)



Common Wealth Educational
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This impact sheet is developed together with SWITCH-Asia Policy Support Component

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Funded by
the European Union