

TECHNICAL ADVISORY NOTE (TAN)

Accessing High-Value Markets for Livelihood Enhancement: Bamboo Bread Basket Production by Industrial Processes

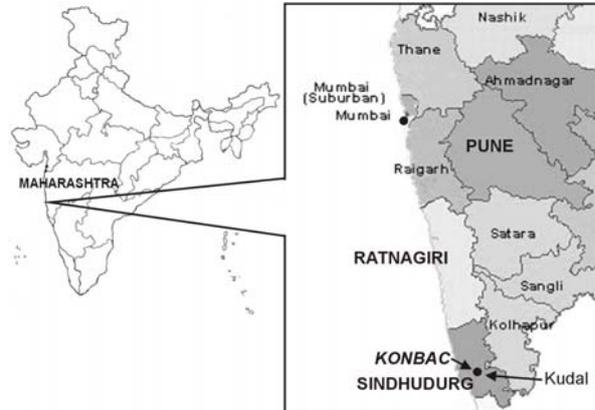


INBAR

INTERNATIONAL NETWORK FOR BAMBOO AND RATTAN

INTRODUCTION

In Kudal, Sindhudurg district, Maharashtra, KONBAC, an INBAR-established community-based NGO, has organized a women's self-help group (SHG) to produce industrial handcrafted bread (roti) baskets. These roti baskets, which are woven from machine-processed bamboo raw materials, are superior to traditional handicraft baskets, in terms of both quality and aesthetic value. The project has enabled rural women to engage in high-value processing activities, with roti baskets being sold to new high-end markets, such as resorts and restaurants, in the nearby Goa tourist region. Women producers are now adding 800% to the value of original raw bamboo materials.



The Indian Institute of Technology (IIT), Mumbai is the other implementing partner for this activity. Prof. A.G. Rao from the Bambu Studio, the design unit of Indian Institute of Technology (IIT) Mumbai designed the roti baskets in collaboration with KONBAC.

The Context

The project promotes rural production of high-value bamboo handicrafts, as a means of increasing the income-earning potential of local women artisans. In Konkan, there is a long tradition of bamboo artisanship, which provides an ideal entry point for sustainable livelihood development. In Sindhudurg district, for example, where the project's CFC is located, around 8,861 families engage in bamboo-based livelihood activities. At present, large numbers of local women produce utilitarian handicraft goods, such as mats, bags and baskets, which they sell in local markets. However, returns from bamboo handicraft production have fallen significantly in recent years due to lack of variation in design, poor product quality, market saturation and the emergence of plastics. The sector has also suffered from a lack of institutional support, with local artisans unable to access marketing information or undertake training courses. This has caused many bamboo artisans to leave the sector. Therefore, through developing new designs and improving product quality, the project has attempted to increase rural women's access to new, high-value markets. The project attempts to build on existing bamboo artisan skills, such as weaving, while also introducing new, mechanized, high value-adding activities.

As the lack of local off-farm markets in Konkan, which is one of six divisions of Maharashtra State, is severe, development of new bamboo handicrafts is crucial for generating rural livelihood opportunities. At present, Konkan is predominantly rural, with the majority of inhabitants dependent on agriculture for their livelihoods. However, as local agriculture relies heavily on variable monsoon seasons, rural farmers are susceptible to large fluctuations in income. This has caused widespread poverty in the region. For example, approximately 38% of the population in Sindhudurg district lives below the poverty line.

Finally, the project has specifically targeted high-value handicrafts because of Konkan's proximity to local tourism markets. This provides rural artisans with unique opportunities to target high-end markets, thereby significantly increasing their income-earning capacity. Targeting of high-end markets has also played a significant role in changing local perceptions towards bamboo handicrafts, which have previously been associated with poor quality and poverty. This change in perceptions has helped encourage a number of local women to participate in other bamboo-based activities run by the ARS project.

The Process: roti basket production



Main Successful Technical Components of the Research Programme

- Successful development of bread basket designs, which are aesthetically pleasing and meet high-end market demand.
- Women SHG members trained in production techniques required to produce baskets.
- Kudal CFC equipped with hand-operated machinery.
- Development of functional supply chains between farmers and the SHG.
- Links established with the high-end tourism market.

Scope for Replication

Scaling-up: Given Konkan's close proximity to the Goa resort region (240 km), great potential exists for up-scaling the project. The project has access to a significant number of retail outlets – such as hotels, resorts, restaurants and gift shops – due to the size of the Goan tourism market valued at US\$395 million per year (2005-06). The increasing productivity of the artisans will ensure that women producers are able to maintain current incomes levels, offsetting the decreasing unit price, and expand supply to more outlets in the future. Furthermore, as a number of potential handicraft products can be woven using mechanically processed bamboo raw materials, opportunities exist for the development of further basket designs, as well as diversification into other product segments. This will help to spread risks and increase market access. In the future, Konkan SHGs will also be able to target growing national markets for high-end bamboo products (see below).

Scaling out: Large potential exists for up-scaling the programme into other areas of India, where there is an increasing demand for high-value bamboo products. At present, national markets for bamboo handicrafts are estimated to be worth US\$112 million, with demand projected to grow by 15% per year. However, this market is vastly under-exploited due to the limited technical capacity of many rural artisans, who tend to produce products solely by hand. In particular, there is enormous untapped market potential for handcrafted goods, such as baskets, mats and trays.

In addition to the large size of the national market and the potential for product diversification, project out-scaling could also benefit up to 15 million rural artisans, mostly women, who currently work in the bamboo handicraft sector. Out-scaling is feasible in numerous bamboo-rich Indian states, such as Assam, Tripura, Mizoram, Meghalaya, Nagaland, Manipur, Himachal Pradesh and Uttaranchal. In order to support scaling out to other regions, rural communities in these areas will require institutional support to develop training courses and links to markets. Micro-financing systems are also needed to ensure communities have access to credit, needed to cover initial household enterprise start-up costs.

SECTION ONE: THE INSTITUTIONAL CONTEXT

- The project is one of several INBAR ARS programmes developed by the INBAR Livelihood and Economic Development Programme, under IFAD grants TAG 518 and TAG 774.

SECTION TWO : THE PROGRAMME IMPLEMENTATION

Target Groups and Outputs:

Target groups: the project primarily targets women artisans, who are currently unemployed and living below the poverty line.

The main project outputs are:

- Development of high-end market roti basket designs and industrialized production techniques
- Establishment of effective community training and enterprise models

Impacts

Tangible Impacts

Impacts on the human capital

- Twenty women trained in bamboo crate production (pictured right)
- Organized women's SHG established.



Impacts on the social capital

- Formation of community partnerships between the SHG and local hotels, restaurants, and high-income households.
- Equipping of the CFC with hand-operated machinery.

Impacts on the natural capital

- Formal supply chains established between the bamboo farmers and the SHG, resulting in introduction of best-practice cultivation and harvesting techniques.

Intangible Impacts

- Women producers can produce 12 baskets per month, working on a part-time basis (2-3 days per week)
- Supply chain links established between SHG members and local bamboo farmers, increasing farmers incomes by Rs 175 (US\$4.375) per month.

Constraints Faced During the Programme Implementation

Internal:

- Artisans production capacities are poor, as they lack access to new technology and training.
- Inadequate linkages between community producers and commercial markets.
- Rural communities unable to access market information, or conduct market research.
- No community infrastructure in place to support development of the bamboo sector.

External

- Small producers have difficulty gaining access to credit financing, thus constraining attempts to start-up/upscale production.
- Lack of adequate policies and inconsistent legal regimes to access the available bamboo resource.
- Lack of institutional price regulation for raw bamboo in the region, leading to unstable production costs.

Accessibility

Owing to KONBAC's linkages with CIBART and INBAR, technical and research outputs from the programme are available for replication at both the national and international level. In India, institutional linkages are established through CIBART, which manages four Indian ARS programmes (Tripura, Tamenglong, Himachal, and Konkan). Internationally, action research from Konkan can be adaptively replicated across INBAR's network of 34 countries. Research outputs are available at low, or no cost to individuals and community groups operating in INBAR member countries.

Institutional Sustainability and Degree of Farmers' Involvement in the Research Programme

The project has been developed in consultation with local women artisans, who have all participated on a voluntary basis. SHG members are now responsible for managing supply chains, as well as marketing. The capacity of the SHG is currently being built to enable women artisans to develop their own lines of products and designs.

The programme is run by KONBAC, a community-based NGO, established by CIBART in 2004. Community stakeholders (master trainers and development professionals) play an active role in decision-making, with external partners (Indian Institute of Technology, Mumbai and INBAR) providing technical and logistical support. Community ownership of KONBAC ensures that the organization remains directly rooted to the local area, thus promoting long-term sustainability.

The Kudal CFC, which is owned and run by KONBAC, provides the SHG with access to processing technology required for making bamboo roti baskets. Rural community members are able to participate directly in community trainings at the CFC. The facility also serves as a base for marketing products to the tourism market.

The Gender Dimension



The project has directly benefited 20 women, who have been organized into a SHG with formal links to new high-end markets. Women extension officers have played a direct role in running the project, raising awareness and running training courses. The project has significantly increased women participants' incomes, with all SHG members now earning Rs 1,200 (US\$30) per month. In addition to increasing incomes, the project has reduced women's working times, while also increasing their production capacity. This has provided them with more time to spend with their families and households.

The higher income has given the women more economic independence and self-confidence, and the resultant higher social status. This is highlighted by SHG members' increasingly active roles in organizing supply chains and marketing. The project has thus contributed significantly to the empowerment of local rural women.

Dissemination Pathways

Communication strategies at the village level:

- CFC-based training courses led by Master Trainers
- Face-to-face meetings
- Artisan-to-artisan communication

Communication strategies at the National and International levels

- Trade Fairs and product workshops
- Technical reports and publications

Further Research Needs

- Develop micro-financing models to enable up-scaling in Konkan and out-scaling in other regions of India.
- Expand training programmes for more local women.
- Develop new designs and products to increase market access.

Annex 1: Data Box

The Research Programme

The research programme helps rural communities to develop technologies and processing techniques for local bamboo resources, thereby generating enhanced livelihood and income-earning opportunities. At the local level, the programme is implemented by KONBAC, a community-based NGO, set up in 2004 by the Centre for Indian Bamboo Resource and Technology (CIBART), INBAR's Indian partner. KONBAC focuses on developing bamboo products and business models for community enterprise. The Kudal CFC, established through a grant from the Development Commissioner (Handicrafts), operates as the programme's base for community training, production and marketing. At the village level, participatory approaches are encouraged through the SHGs and a Joint Forest Management Committee. KONBAC employs women officers to liaise with key stakeholders in the local community.

Bamboo Roti Basket Production: Industrialized handicraft production varies from traditional methods in that it uses standardized components that have been processed using machines, in this case hand-operated machines. These machines, which include slicing and sizing machines, are used to produce bamboo slivers of standardized width and thickness. The use of standardized slivers ensures that final products are uniform and high in quality. Women produce the roti baskets by interlacing the slivers. Initially, plain and dyed slivers are woven into a base, which is fixed using a jig. Moulds are also employed to ensure uniformity in size and placement of the basket's top ring. Completed baskets are then sun-dried, before they are transported and sold in high-end markets.

Development of bamboo roti baskets is a viable entry point for poverty alleviation in the Konkan area due to the region's abundant bamboo resources. Konkan has 38,643 ha of forest and is home to a number of bamboo species, such as *Oxytenanthera stocksii*, *Oxytenanthera monostigma*, *Bambusa bambos* and *Dendrocalamus strictus*. The nature of local bamboo crops varies from moderately dense to regenerating types.

Costs: One farmer supplies the bamboo raw material needs of one woman weaver each month. Farmers sell 6 - 7 bamboo poles each month at 25 INR to the SHG, which is sufficient to produce 12 Roti baskets. Women are paid 100 INR per basket by KONBAC, which retail the baskets at 130 INR each (USD\$2.95). Each Women earns a monthly income of INR 1200 (US\$26.5)

SECTION THREE: USEFUL INFORMATION

Keywords:

Konkan, KONBAC, bamboo, bread, basket

Useful links:

www.inbar.int

www.inbar.int/livelihood/ldmain.htm (INBAR's Livelihood Development Programme)

<http://www.cibart.org/tribac.asp>

References:

Livelihood Impact Assessment of Rural Enterprises at Kudal, Maharashtra

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Contacts:

INBAR:

Dr. I.V. Ramanuja Rao

Programme Director

Beijing, China

E-mail: rrao@inbar.int

IFAD:

Mrs. S. Mwanundu

Senior Technical Adviser Environment\NRM

Rome, Italy

E-mail: s.mwanundu@ifad.org

Acronyms:

ARS	: Action Research Site
CFC	: Common Facility Centre
CIBART	: Centre for Indian Bamboo Resource and Technology
DRDA	: District Rural Development Agency
IFAD	: International Fund for Agricultural Development
INBAR	: International Network for Bamboo and Rattan
KONBAC	: Konkan Bamboo and Cane Development Centre
NGO	: Non-governmental organization
SHG	: Self-help group