



Enabling Bamboo Policy in India: From Ideas to Action (Workshop on Bamboo Policy)

Centre for Civil Society



6 DECEMBER 2014, COCHIN – KERALA

Background of Bamboo Sector in India

India has maximum area under bamboo in the world (approximately 11,361 sq km) and China has the second largest (approximately 5,444 sq km). Most of the bamboo traded internationally is exported by China. It accounts for 83.16 percent of the world trade. The contradictions in Indian law regarding the status of bamboo as a tree or a grass and the lack of recognition of community rights on bamboo by the forest departments, has disrupted the growth of the bamboo industry in our country. With such a large source of bamboo, India is not even able to meet its domestic demand, so emerging, as a major exporter of the product seems unachievable right now. The domestic demand mainly arises from use of bamboo in the handicrafts industry, for construction purposes, paper and pulp industry, bamboo flooring, furniture etc. There are huge supply side constraints, mainly due to the presence of various convoluted forest laws in the country.

Bamboo is classified as a 'tree' under the Indian Forest Act, 1927 (IFA). Under this Act, cutting or removing trees (including bamboo) from a government designated 'reserved' forest is a criminal offense. However, under the Forest Rights Act, 2006 (FRA), bamboo is designated as non-timber minor forest produce (MFP), thus consolidating forest dwellers' ownership right to collect, process, store and transport bamboo. This Act gives *gram sabha* the authority to issue transit passes and prepare conservation and management plans for forest resources. It mandates that the administration cannot arbitrarily reject forest rights claims. But the FRA would provide a limited scope for the development of bamboo industry. It appears that unless an FRA provision explicitly states an exception to a previous law, it may be subject to being read together with that earlier law's provisions. Thus, this definition of bamboo as MFP under FRA is in direct conflict with IFA's definition of bamboo as a tree. Furthermore, the Supreme Court in *T. N. Godavaram Thirumulkpad vs. Union of India (1977)* ordered a complete ban on the movement of cut trees and timber from any of the seven North-Eastern states to any other state of the country, either by road, rail or water transport. The cultivation, harvest and transport of bamboo are therefore constrained by the said judgement when read with the IFA.

Case studies in Maharashtra and Andhra Pradesh have highlighted that with recognition of community rights on bamboo, the *Panchayats* in some villages have been able to earn an annual income as high as INR 1 crore. However, in some states like Nagaland, a positive step towards removing all transit restrictions on bamboo has had little impact, because in other surrounding states the restrictions continue to be in place. The differences in laws governing bamboo production and transportation from one state to another adversely affect the industry.

This stunted growth of the industry is causing the Government of India to lose out on its tax collections, that it would have otherwise amassed if the industry were booming. Bamboo is a

near perfect substitute of timber, environmentally viable and ecologically sound. In the future, its demand will increase manifold, and India can benefit a lot by tapping into the market for bamboo, provided it makes positive changes in its laws.

India has 20% of the world's bamboo resources. Bamboo is a multi-utility, fast-growing natural resource. Different species of bamboos grow wild in forests and some important species are grown in homesteads as well. Bamboo provides the necessities of life to the common man, besides which it bestows upon us many environmental and ecological benefits. Management of natural bamboo forests received less attention in the past, which resulted in heavy exploitation and depletion of the stock and the sites. Farmers traditionally grow few commercially viable species without much scientific input and improvement on the traditional practice. Yet, in India bamboo remains "a poor man's timber".

Today, the regulation of bamboo swings among more than five ministries viz. *Ministry of Agriculture, Ministry of Science and Technology, Ministry of Textiles, Ministry of Commerce, Khadi and Village Industries Commission, Ministry of Micro, Small and Medium Enterprises and Ministry of Environment and Forest*, among others. The status is similar with state governments in various states, regarding the legal status, administration and promotion of bamboo. Bamboo has become an orphan in case of India, unlike China which has given bamboo legal status and mandates it as a commodity. Today China commands a 7.5 billion Dollar bamboo business, whereas with India it is nil.

Introduction

While the potential of bamboo has been highlighted in past, there has been progress made at a policy level, officials and departments dealing with the issue still lack clear direction, work plan and capacity to execute the provisions to empower communities right over forests and forest produce.

Core issues regarding Bamboo:

1. Legal status of bamboo and related issues regarding harvesting and transport.
2. Issues related to industrialisation of bamboo, viz, policy, market, design, taxes etc.
3. Institutional mechanism to commoditise Bamboo and facilitate growth of the bamboo sector.

Keeping in mind the potential benefit for tribal and other communities living in and around forest areas, which will have significant impact on their life and livelihood, *Centre for Civil Society (CCS)*, *Kerala State Bamboo Mission* and *South Asia Bamboo Foundation (SABF)* with support from *Friedrich Naumann Foundation (FNF)* organised a day long workshop for officials and key stake holders to examine the bamboo sector, ease regulations and draft a road map for implementation of bamboo policy.

Objectives of the Workshop:

1. Identifying regulatory barriers in bamboo sector and come up with policy solutions.
2. Facilitating the process of implementation and charting out road map of implementation.
3. Knowledge dissemination on potential of bamboo and rights of forest-dwelling communities.
4. Training officials on ways to commoditise bamboo and consensus building on issues related to bamboo market.

Program Structure

Workshop Design:

The workshop was designed as a day-long programme for selected government officials working with concerned ministries or departments, officials/staffs working in various bamboo growing districts, and other key stakeholders. The aim was to facilitate participants' understanding on core issues regarding the bamboo market in India and methods to deal with identified challenges, to unleash the potential of bamboo as resource. The workshop covered a range of issues such as enabling bamboo enterprises, bamboo for social sector and livelihood development, institutional mechanisms, and experiences from other similar sectors through thematic sessions. A total of 46 participants representing Arunachal Pradesh, Assam, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura were present. (Please find list of the participants in Annexure 1)

The pedagogy of the workshop was designed as combination of expert inputs, Power Point presentations, panel discussions and working group exercises. The workshop was organised alongside the Kerala Bamboo Festival which was very pertinent. The participants could not only discuss the potential of the bamboo, but also experience the product which worked as demonstration of ideas. (Please find list of the program schedule as Annexure 2)

Sessions and Key Findings

The workshop was designed around four key themes: Regulatory Framework for Bamboo, Enabling Bamboo Enterprises, Bamboo for Social Sector and Livelihood Development, and Institutional Mechanism for Bamboo. Apart from the four sessions, an introductory session with key leaders of bamboo sector, and a group exercise, were also included in the agenda to take suggestions from the participants to chart out the road map to unleash the potential of bamboo as a resource. Below are the highlights from each session:

Introduction and Opening Remarks:

The workshop opened with a short brief on bamboo sector by Kamesh Salam of the South Asia Bamboo Foundation. In his speech, Mr Salam highlighted the potential of bamboo sector in India, the regulatory barriers that have kept it unutilised and how bamboo sector has grown in China and other countries. Amit Chandra of Centre for Civil Society talked about the potential benefits that tribal and other forest dweller communities would enjoy if they were given rights and access to forest bamboo. He emphasised the need for economic freedom that CCS champions, and then explained the objectives and agenda of the workshop, and the outcome expected.

P K Mohanty, IAS, Additional Chief Secretary (Forest & Wildlife), Government of Kerala then took the stage and explained how his department has been championing the use and development of bamboo products. He believes in the potential of bamboo products and promotes its use, not only in a professional, but also in a personal capacity.

The keynote was delivered by Michel Abadie, President of World Bamboo Organisation, Dr Madhav Karki, an academican from Nepal, and Luce of European Bamboo Society and International Representative of American Bamboo Society. Michel Abadie brought worldwide experience of using bamboo and the way different nations are capitalising on their bamboo resource. Dr Karki shared his experience of studying the bamboo sector and highlighted the bamboo reserve available in India, (specifically in North-East India) and the environmental benefits of using bamboo rather than timber. Mr Luce shared his experience of the use of bamboo in Europe and expressed his appreciation of the efforts being made in India to capitalise on bamboo.

Dr B S Corrie, IFS and Principal Chief Conservator of Forests, Government of Kerala highlighted the initiatives taken by Kerala Government to promote bamboo for domestic and industrial consumption. He also emphasised the levels of innovation that bamboo products must go to, to compete in market.

This was followed by a talk by C P John, Member of Kerala State Planning Board and Vice-Chairman, Kerala State Bamboo Mission. He applauded the efforts taken by partner organisations to organise the workshop and emphasised the need for a stronger national legislative framework to facilitate bamboo sector that it has lacked till date. Mr John said, *“The country today requires a strong legislative framework to facilitate the bamboo sector. We have ample learning from MNRGA, and a similar framework would ensure livelihood opportunities for millions.”* He also mentioned that we have legislation on spice, rubber, coir, coffee under which the boards work and the sectors have grown well, and a similar approach should be taken for bamboo—we should advocate for a National Bamboo Act. He also proposed that participants of the workshop come up with the initial input for the legislative draft and he would provide his full support to take it to authorities in the national government. He advised the organisers to form a smaller group of selected members and come up with suggestions for the national law within three months.



PICTURE OF GUESTS DURING OPENING AND INAUGURAL SESSION

Session 1: Regulatory Framework for Bamboo:

The first session dealt with existing regulatory framework for bamboo sector. The key emphasis in the session was:

1. Definition of bamboo in forest land and cultivated on private land
2. Regulations regarding cultivation and harvesting of bamboo
3. Transportation of bamboo from place of cultivation to place of production and state regulation on transit of bamboo.

The panel consisted of N K Jha, IAS, Additional Chief Secretary of Government of Manipur; Dr Ajoy Bhattacharya, IFS, Additional Principal Chief Conservator of Forests and State Mission

Director of Madhya Pradesh State Bamboo Mission; Kichung Phom, Team Member of Nagaland Bamboo Development Agency; Bikash Brahma, IFS, Additional Principal Chief Conservator of Forests of NC Hills Assam; Winston. S. Suting, IFS, Additional Principal Chief Conservator of Forests (Social Forestry) of Kerala Government; and Rajendran, Assistant Conservator of Forestry (Social Forestry) of Kerala Government.

The key outcomes of the session were:

1. To improve the quality of bamboo plantations, thin walled bamboo need to be extracted for pulp and charcoal first, and then quality materials should be planted.
2. Bamboo needs to be prioritised for further research and development to make it a quality commodity.
3. Transit permit for transportation of bamboo is still required—this permit should be done away with/relaxed.
4. Credible case studies and data are required to make a convincing case for government and planning bodies to make plans for growth of bamboo sector.
5. 3Cs need to be addressed in the bamboo sector:
 - a. Contradiction – different agents, department and ministries
 - b. Coordination – across objectives of different bodies
 - c. Convergence – in use of funds, human resource and development and other inputs
6. National Mission on Bamboo Applications has now been converted to a regional body for the North-East. It was recommended that this remain a national body.
7. The tax structure on bamboo products needs to be aligned across the states.
8. A separate workshop focusing only the transit pass for bamboo required.
9. Incentives and subsidies program for bamboo farmers is required.
10. PPP model being examined – 90% promoter, 5% community and 5% state, bamboo poles given free for local artisans, and all schemes directly managed by the Mission.
11. Nagaland Bamboo Development Authority, through its task forces involves all relevant departments, thereby minimising red tape and coordination issues. This is a best practice that can be adopted on a wider scale.
12. Use of community land for cultivation and through land tenure system recommended.
13. Transit permit is not required in Nagaland which is good, yet transporting bamboo is still not possible, since other neighbouring states still require this transit pass.
14. Enterprise development through common resources, common skill development etc.
15. In Assam, bamboo is leased by District Council to paper mills. District council has started its own operations with some value additions.
16. Transit pass for home grown bamboo is not required in Assam but is required for bamboo from forest areas.
17. Rubber plantations are displacing bamboo, so a bamboo industry required for preservation and development of bamboo.

Session 2: Enabling Bamboo Enterprises

The second session focused on ways to enable bamboo enterprise in India. The key emphasis of the session was:

1. Possible ways to convert bamboo into commodity for various uses.
2. Ways to create and improve design for bamboo products and marketing.
3. Quality standards, measuring and improvement for bamboo products.

The panel consisted of Managing Director of Kerala Bamboo Corporation, Angamally, Kerala; C S Susanth of National Institute of Design, Bangalore; Sunil Joshi of Institute of Village Enterprise Development for Handicraft Artisans, Nagpur; V M Rajshekharan, CEO of ITC, Agarbatti Unit, Chennai; Phanindra Kumar Rao, IFS, Conservator Forest of Kerala Government; and K Vijayan, IFS, DFO, Malayattoor.

The key outcomes of the session were:

1. ITC, for *aggarbatti* production, requires 40 thousand tons of bamboo as sticks, 90% of which they import from Vietnam via Chennai port. Only 10% of sticks demand is met domestically.
2. The species of bamboo required for incense sticks is available in India too, yet imports continue due to the lack of supply from the local suppliers. ITC encourages local stick makers, but there are very few takers.
3. 'One species, one product' approach was adopted by NID, which advocated examining each species for its uses for better development. A mass production approach is required for bamboo products.
4. Standardisation of products through product manual should be done. Packaging and branding neglected by artisans. Bamboo textbook for media and school can be used and mobile learning app being developed.
5. Vedha, a Nagpur based firm is into house construction, furniture of bamboo through women artisans, federation and democratic decisions at common resource centres.
6. Bamboo furniture market is likely to be INR 3,264 crore by 2025.
7. Focus on quality and a few products as signature products – easy chair in Chattisgarh, hangers in Nagaland, etc. Reserve bamboo for construction/ procurement by departments.

Session 3: Bamboo for Social Sector and Livelihood Development

Third thematic session was designed on use of bamboo in social sector and livelihood development. The key emphasis of the session was:

1. Possibility of maximising use of bamboo in government housing schemes
2. Introduction of bamboo in sanitation campaigns
3. Bamboo as a tool for developing community enterprises and generating livelihood
4. Facilitating bamboo cluster development

The panel consisted of Balu Ponaswamy of Auroville Bamboo Center; Vaibhav Kaley of Wondergrass, Nagpur; Mukesh Gulati of Foundation for MSME Cluster Development, Delhi; Abraham Techi, Arunachal Bamboo & Cane Development Society, Government of Arunachal Pradesh; K A Mohammed Nowshad, IFS, Chief Conservator (Social Forest) of Kerala Government, Kollam; S Unnikrishnan, Assistant Conservator of Forests (Social Forestry Extension), Kerala Government, Ernakulam; and Sivaraj of Uravu Indigenous Science & Technology Study Centre, Wayanad, Kerala.

The key outcomes of the session were:

1. Policy and regulations are not the only obstruction to bamboo development, promotional policy is also lacking. Convergence at Central, State and local bodies required.
2. Need to make a Dream Policy, and for that more studies and data are required to make a convincing case. Create industry association to protect the entrepreneurs and lobby with the government.
3. Need to create a viable business model, learn from failed projects in North-East and replicate successful model across regions.
4. More funds are required for entrepreneurs and there is potential for initiating projects on the PPP model.
5. Plantation of high quality bamboo is required. The bamboo currently available in market is of poor quality and is also costly. There are also constraints in skill.
6. Special promotional packages are required to give a boost to the bamboo sector. Bamboo related work can be included in NREGA.
7. There is yawning gap: problem of plenty at source and problem of scarcity at user.
8. Remote bamboo growing areas have no roads. New road construction not permitted in forested areas. Farmers prefer cash crops over bamboo. Bamboo shade is also not good for crops.
9. Promote bamboo as second income source for coconut and rubber farmers. Farmers fear similar experience in vanilla and cocoa price crash.
10. Bamboo has very bright future in demand for construction of houses, toilets and schools.

11. Bamboo as a material is inherently inclusive. MIT is conducting a research on bamboo.
12. Mindset on use of bamboo is problematic. Huge demand for transit housing and migrant housing.
13. State policies are not conducive for now. Kerala government restricts extraction to 20 poles a month. Even dry bamboo is not allowed for free. Officers cannot help much due to policy guidelines.
14. Currently there are many bamboo institutions. National Mission on Bamboo Application was better than others.
15. Caste issue in extraction and trading of bamboo is another problem in many parts of the country. North-East is better placed for bamboo development since there is no caste issue.
16. Industries are not coming up since demand at INR 2,000 per ton of raw bamboo is not feasible. No proper treatment at local level, no guarantee or certifying agencies. Less acceptability of products by masses.
17. Preferably bamboo must be kept out of both agriculture and forest departments.



PICTURE OF PARTICIPANTS DURING ONE OF THE THEMATIC SESSIONS

Session 4: Institutional Mechanism for Bamboo

The fourth session was designed to explore various existing institutional mechanisms of central government and state governments. The session was to help better understand the various institutional models, the need for convergence and looking for more suitable institutional models. The key emphasis of the session was:

1. Understanding the power, limitation and functioning of state bamboo missions.
2. Learning from the experiences of institutional mechanism for rubber, coir and spice.
3. Looking for a more suitable institutional alternative for the bamboo sector.

The panel consisted of Kamesh Salam of South Asia Bamboo Foundation; M Kumara Raja, Secretary, Coir Board, Kerala Government; and Roy Joseph, Spice Board, Kerala Government.

The key outcomes of the session were:

1. Coir Board works under Ministry of Micro, Small and Medium Enterprise. It was set up under Coir Industry Act 1963. It has two research centres and one training centre. It has 40 showrooms across country, 162 export destinations.
2. New application for coir products are coming up and increasingly substituting timber, scope to use coir and bamboo complements.
3. Coir board works through cluster development model and project funding support and subsidy is available.
4. Constant product development and innovation is happening with help from National Institute of Design and other institutes.
5. Focus on core properties of bamboo and develop products around the property.
6. More coconut in Kerala, yet coir product coming to Kerala from Tamil Nadu due to lack of state policy and high cost of labour.
7. Spice board takes up production, development, promotion and exports for some spices and for some spices it takes up only export work. It exports only 11% of spices produced.
8. Quality spices are not available for export since European and other countries are revising their quality standards.
9. Spice board gives subsidy, infrastructural developments, promotional, marketing and various other supports is given for quality improvement and certification at all levels from farm to product.
10. Bamboo Development Authority should be created for facilitating bamboo sector instead of board or mission.
11. People are cutting bamboo to grow spices in Arunachal and rubber in Tripura.

Conclusion and Recommendations

A group exercise was conducted to recap ideas from all the thematic sessions and take recommendation from the groups on improving the growth of bamboo sector. All the participants were divided into four groups and each group was assigned one of the four topics of the sessions.



The group was asked to give its recommendations, charting a road map to unleash the growth in bamboo sector. Below are the key recommendations from each group:

Group 1 (Bamboo Enterprises):

1. New policy should ensure quality raw material and treated bamboo to entrepreneurs. Support to entrepreneurs to encourage their participation in bamboo sector.
2. Human resource to work in the sector is also required. ITI institutes in states should also focus on skilled labour to work bamboo sector.
3. IIT and other similar technology institutes can start programs focused on use of bamboo.
4. Certification and standardisation of bamboo and bamboo products is required to ensure quality input and product.
5. Business incubation centres should be developed and connecting with market would help.

Group 2 (Enabling Regulatory Mechanism):

1. Review of the state regulatory mechanism needs to be done state-wise which can be done by respective state bamboo mission.
2. There needs to be a regulatory mechanism at the federal level in form of a law, rules, schemes, guideline and action plan. This should be done by Ministry of Environment and Forest (MoEF) and Ministry of Agriculture.
3. There is inconsistency of federal and state laws and there are many ministries involved. National Bamboo Development Authority under MoEF and State Bamboo Development Authority should be constituted under Ministry of Agriculture.
4. Transit pass issue needs to be studied in more detail and a separate workshop needs to be organised to understand and resolve the issue. There can be a standard National Transit Policy.

Group 3 (Bamboo for Social Sector and Livelihood Development):

1. We must make use of '*Swachh Bharat*' campaign by making bamboo toilets available for families and community and similarly in other sanitation programs.
2. Housing schemes such as *Indira Awas Yojna*, *Rajiv Awas Yojna* and other similar schemes should encourage use of bamboo houses not only for low cost housing but also in high end housing development plans.
3. Use of bamboo can also encouraged in providing housing facilities during disaster relief activities and also in tourism promotion.
4. Community promotion and livelihood generation requires intervention through institutional mechanisms at national, state and local level. Cluster development model can be applied through PPPs.
5. Bamboo sector requires promotion through subsidy and other support from government in initial phase. Once the sector takes up, its growth can be left to the market.

Group 4 (Institutional Mechanism for Bamboo):

1. From the experience from coir board, boards have many limitations as they have a large governing body and conflicting interests. The creation of National Bamboo Board is not recommended.
2. National Bamboo Development Authority can be created as it brings flexibility, less bureaucratic functioning and is more successful model from the perspective of administration. Ministry of Environment and Forest at a federal level should create this National Bamboo Development Authority.
3. National Bamboo Development Authority can also take up CSR, promotional, marketing etc. The Authority can partner with other organisations for research and development related work.
4. An association or federation should be created to study the new legislation that has been mentioned during the workshop and lobby for creation for National Bamboo Development Authority.