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BANGLADESH

INTEGRATED PROTECTED AREA CO-MANAGEMENT (IPAC)

INITIAL ASSESSMENT REPORT
ON BAMBOO VALUE CHAIN IN
SYLHET CLUSTER (LAWACHARA & SATCHARI)
SOUTH-EASTERN CLUSTER
(CHUNATI WILDLIFE SANCTUARY)
CENTRAL CLUSTER (PIRGACHA)

SYLHET: November 23, 2008 – November 24, 2008

SOUTH-EASTERN: November 25, 2008 – November 26, 2008

CENTRAL: January 20, 2009 – January 21, 2009

February 27, 2009

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List of Abbreviations used

General:

BDT, Taka, Tk.	:	Bangladesh Taka (1USD = 69BDT)
USD	:	United States Dollar
Kg	:	Kilogram (1000kg = 1Ton)
Da, kanchi, boti	:	Cutting knife
Chokhi	:	Hole punch
Paikar	:	Middle-man
Bazar	:	Market
Bamboo clump	:	A bamboo cluster
Bamboo culm	:	A whole bamboo
NSP	:	Nishorgo Support Project
IPAC	:	Integrated Protected Area Co-management
A.C.	:	Assistant Commissioner
D.C.	:	District Commissioner
1 Lac	:	100,000 / 0.1 million
INBAR	:	International Network for Bamboo and Rattan
BFRI	:	Bangladesh Forest Research Institute, Chittagong
PA	:	Protected Area
FD	:	Forest Department
CBO	:	Community Based Organization
NGO	:	Non Government Organization
GOB	:	Government of Bangladesh
Khash Land	:	Government Land
IIT-Bombay	:	Institute of Information Technology – Bombay,
Mumbai, India		
CBTC	:	Cane and Bamboo Technology Center, Assam, India
Bamboo in High volume cultivation	:	Bamboo grows in abundant both naturally and
Bamboo in Medium volume both	:	Bamboo grows not in abundant but medium scale naturally and cultivation
Bamboo in Low volume	:	Bamboo grows low both naturally and cultivation
Good quality bamboo nodes,	:	Bamboo which is straight, long length, long inter thick walled and easy to split

Bamboo household products:

Mora, piri	:	Sitting tool
Jhaka, tukri, dala, tupa	:	Woven basket
Dosain, khacha	:	Woven basket
Tribal jhuri	:	Woven basket made by tribal community
Chalun, toloi	:	Woven pot used as grain strainer
Kula	:	Woven pot used for husking
Duli, dula	:	Woven container for grain storage
Chatai, dhari	:	Woven mat
Khaloi, kharang	:	Woven fishing pot
Palo, lai	:	Woven fishing trap

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Executive Summary

This report contains an assessment of the potential for the development of Bamboo based business from within specified cluster areas of the IPAC project. It is based around moving up the technology ladder from very basic level and adding value to bamboo based raw material for accessing local market which could generate quick income stream for the stakeholders. It is also based around the understanding of global market interest and available technology to add value to Bamboo based raw material resulting in product innovation and new market opportunities, which could benefit the rural poor of Bangladesh.

It was found that the areas visited in Sylhet have the highest potential, followed by Southeastern and finally Central clusters. In each of these areas, currently a very broad range of products are already produced. In Sylhet areas, it was found that stronger basic processing skills are already present, the communities have some level of organization and basic Bamboo cultivation skills. It was found that the logistics, accessibility of sourcing raw material and overall infrastructure in Sylhet is rather better than the other two clusters. Limiting factors for the development of business in Central and Southeastern areas, include difficulties with land rights, limited community organization. If these issues can be addressed then in all areas, over time, there is potential for cluster and plantation type supply chain models. This would need to be driven by the type of Bamboo under cultivation, which in turn is driven by product and market demand.

Recommendations are made to move ahead with the development of Bamboo based business, initially focusing on Sylhet clusters, Lawachara and Satchari. Broadly this would involve market research in Sylhet area with a view to getting some quick benefits, but in parallel to take an entrepreneurial approach which is to try to connect local products to local markets. For longer term, accessing US markets with innovative woven products; and also exploring local product applications in the construction and other industries. If in collaboration with other IPAC partners the constraints identified in the Chunati & Banskali in Southeastern cluster and Pirgacha or other potential areas in Central cluster could be addressed, then Bamboo based business could also be developed in these areas.

A. Project Brief:

To conduct an initial assessment in IPAC geographic areas where there is commercial potential for developing Bamboo based small business opportunity.

Outcomes:

Identify geographic areas where there is commercial potential in bamboo value chain, and make recommendations in support of overall IPAC project goals.

Objectives:

This initial assessment includes the following:

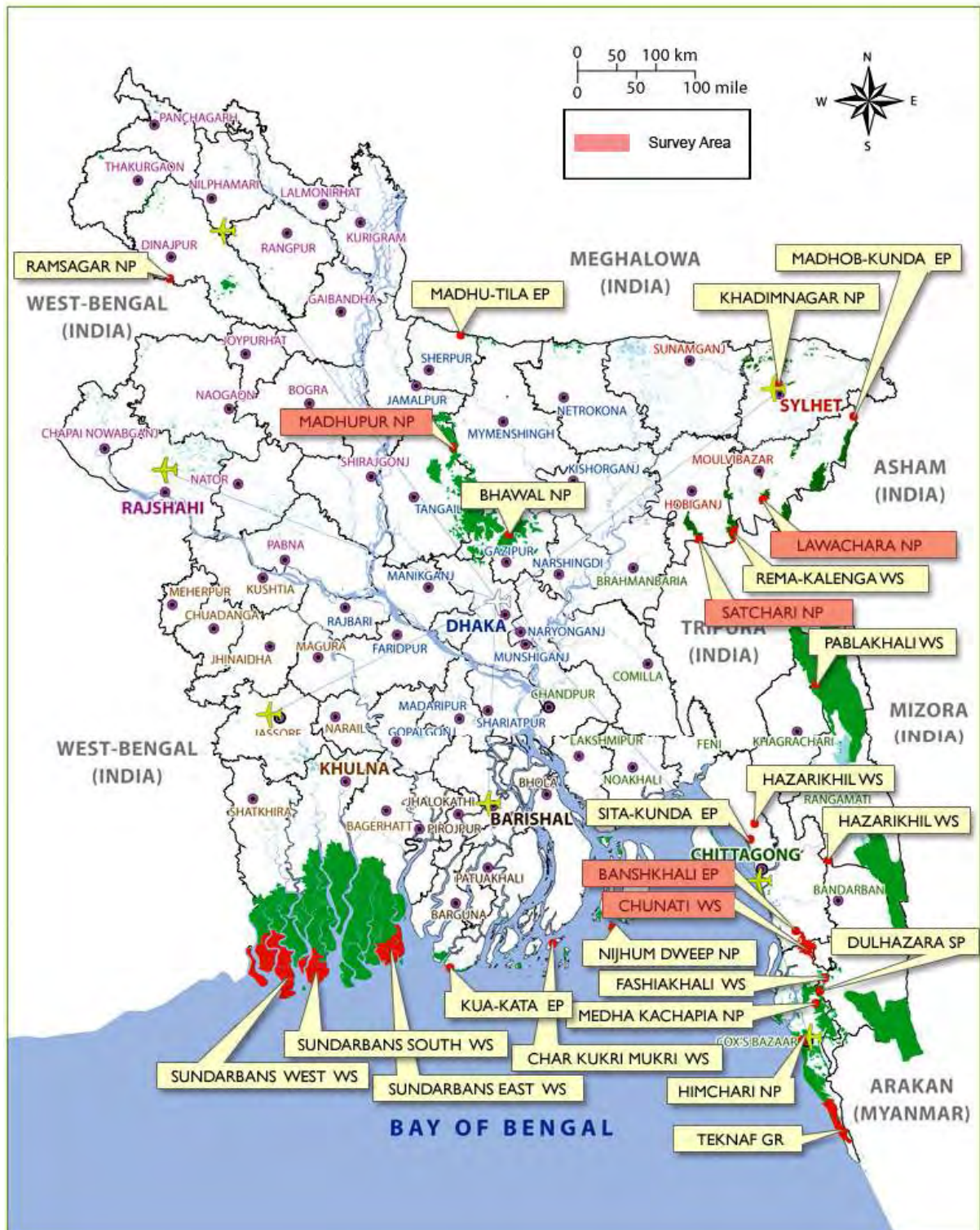
1. Assessment of resources in variety, volume, quality, price and usage
2. Assessment of existing general skills for livelihood; skills and technology for bamboo processing
3. Assessment of existing bamboo industry, products & market
4. Assessment of existing land ownership & use, cultivation practices & crops, occupation & income etc
5. Assessment of logistics, accessibility for sourcing raw material
6. Assessment of existing infrastructure of utility & other services – electricity, gas, water supply, communication, transportation, security etc.

Locations and dates:

Visiting location and dates:

Cluster Name	Name of location	Visiting date
Sylhet Cluster	1. Dolubari Muslim Para, Lawachara, Srimangal 2. Siraj Nagar and Jibon Nagar, Lawachara, Srimangal 3. Gazipur and Rajapur, Lawachara, Srimangal 4. Ratanpur and Bagbari Satchari, Hobiganj	23 rd November – 24 th November 2008
Southeastern Cluster	1. Bagan Para, Goalte Para, Hindu Para, Shah Saheb Gate, Chunati, Cox's Bazar 2. Jaaladi & South Jaaladi, Shilkoop, Banskhal, Chakaria, Cox's Bazar	25 th November – 26 th November 2008
Central Cluster	1. Bormon Para, Pirgacha, Madhupur (Meetings with women artisan and local small bamboo businessmen) 2. Tomtomani Ninok (Shanti Niketon), Prigacha, Madupur (Meeting with local community leader, religious leader, NGO worker & IPAC staff)	20 th January – 21 st January 2009

Map of Bangladesh showing research sites and IPAC project areas of Bangladesh:



[Source: http://www.nishorgo.org/pa_maps.asp]

B. Methodology

1. Assessment of existing knowledge base on variety, volume, quality, prices and potential usage within Bangladesh.

Survey research was done on existing bamboo varieties grown in villages and buffer zone areas around PA's; a survey on open market price of bamboo as raw material and various usage of this within Bangladesh. 5 locations in Lawachara & 2 locations in Satchari in Sylhet Cluster, 4 locations in Chunati & 2 locations in Banskhal in Southeastern Cluster, and 1 location in Modhupur in Central Cluster are covered. Target group was Inhabitants of Protected Areas (PA's) and Adjacent Areas, local businessmen, CBOs/Local Institutions, NGOs/NSP, Local Influential/community and religious leaders. Information was collected by informal interviews, survey interviews, key information interviews, focus group discussion and general observations.

2. Assessment of existing general skills for livelihood; skills and technology for bamboo processing

Survey assessment was done on peoples' general skills and what do they do for their livelihood by survey interviews, informal interviews. Investigation is done on their skills and technology for bamboo by informal interviews, observations, key information interviews, and focus group discussion in above all areas.

3. Assessment of existing land ownership & use, cultivation practices & crops, occupation & income etc

An investigation was done on existing ownership and how lands are being used, cultivation practices & crops, occupation & income by "one to one" interviews, focus group discussion and information from IPAC local staff. Investigation was done on land leasing process by informal interviews and discussion with forest Bit Officers, Range Officers and other private and government authorities in visiting areas.

4. Assessment of existing industry, products & market

An investigation was done on existing industry; products and market in above all areas. Information collected by "one to one" informal interviews, key information interviews. Analysis and comparison was completed against existing supply chain models.

5. Assessment of logistics, accessibility for sourcing raw material and infrastructure of utility & other services

Investigation was done on logistics & accessibility for sourcing bamboo raw material; this includes road facility & transportation, security etc. An investigation research is done on electricity, gas, water availability and communication systems like telephone, internet, mobile etc. Information collected by One2One informal interviews, key information interviews and general observations.

C. Results

1. Assessment of existing knowledge base on variety, volume, quality, price, where grown, and potential main usage within Bangladesh.

Investigation results for the above area are given below:

Table: Variety, volume, quality, price, where grown and potential main usage: VH = Very High, H = High, M = Medium, L = Low, VL = Very Low, NS = Not Sure

Area	Variety (local names used)	Volume (VH, H, M, L, VL, NS)	Price range (per culm in BDT)	Where grown	Quality	Main usage
Sylhet Cluster	Barak/Borua	H	100-150	Village grown	Wildly grown Bamboo in forest hill areas are generally very good quality. Village grown bamboos which are cultivated and managed is good but the quality of unmanaged village grown bamboo is low.	Construction, Pole, Agricultural Implements, Shoots edible, Fuel
	Jai	M	50-150	Village grown		
	Makal/Mahal/Mal/Bakal	H	50-100	Village grown		Construction, woven basket, household products, fence, Handicrafts, Thatching & Roofing, Agricultural Implements, Fuel
	Betua	H	40-100	Village grown		
	Konkoir	M	5-10	Village grown		
	Muli	H	5-10	Forest grown		
	Mitinga	M	40-60	Village & Forest grown		
	Kali	L	4-5	Forest grown		
Southeastern Cluster	Barak/ Bairga	H	100-180	Village grown	Wildly grown Bamboo in forest hill areas are generally very good quality. Village grown bamboos which are cultivated and managed is good but the quality of unmanaged village grown bamboo is low.	Construction, Pole, Agricultural Implements, Shoots edible, Fuel
	Jai/Bariala/Baizza	M	50-100	Village grown		
	Mitinga/Mita/Nita	M	10-25	Village & Forest grown		Construction, woven basket, household products, fence, Handicrafts, Thatching & Roofing, Agricultural Implements, Fuel
	Orah	M	100-120	Village grown		
	Muli	H	10-15	Forest grown		
	Phaiya	M	4-10	Forest grown		
	Kali	L	4-10	Forest grown		
	Dolu	L	8-10	Forest grown		
Central Cluster	Barak	H	110-190	Village grown	Wildly grown Bamboo in forest hill areas are generally very good quality. Village grown bamboos which are cultivated and managed is good but the quality of unmanaged village grown	Construction, Pole, Agricultural Implements, Shoots edible, Fuel
	Jai/Bahini	M	30-50	Village grown		
	Raja	L	200-250	Village grown		Construction, woven basket, household products, fence, Handicrafts, Thatching & Roofing, Agricultural Implements, Fuel
	Tolla/Moral	VH	50-70	Village & Forest grown		
	Betua	M	80-100	Village grown		
	Tarai	L	10-20	Village grown		

					bamboo is low.	
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2. Assessment of existing general skills for livelihood; skills and technology for bamboo processing

The following table is showing general & bamboo skills and technology of the stakeholders. People by generation have basic bamboo skills and also received some bamboo training and producing various products then selling into the local markets. But still this is not giving them regular income. So they are producing products in leisure time beside various household works.

Table: Existing general skills for livelihood; skills and technology for bamboo processing:

Area	General skill	Bamboo skill	Bamboo Technology
Sylhet Cluster			
Dolubari Muslim Para, Lawachara, Srimangal	General agriculture, bamboo nursery, lemon, jackfruit, pineapple, vegetable, cow-goat rearing & fattening, poultry, carpentry, roof of house etc.	House, mat, basket, various household products	Da, kanchi, chokhi, saw, small axe
Siraj Nagar and Jibon Nagar, Lawachara, Srimangal	Agricultural, cow & goat rearing, poultry, bamboo and general nursery.	Basic skills in bamboo and can weave various baskets, mats etc.	Da, kanchi
Gazipur and Rajapur, Lawachara, Srimangal	Agricultural, vegetables, lemon garden, sewing, cane, and bamboo nursery.	Handicraft, Fence, various baskets, household products	Da, kanchi, chokhi, saw, small axe
Ratanpur and Bagbari Satchari, Hobiganj	Agricultural, vegetables, bamboo nursery, sewing	Fence, various basket, household products	Da, kanchi, chokhi, saw, small axe
Southeastern Cluster			
Bagan Para, Goalte Para, Hindu Para, Shah Saheb Gate, Chunati, Cox's Bazar	General agriculture, brick-field labor, vegetable cultivation, cow-goat rearing, poultry, fishery	House construction, fence, woven mat & basket, various household products	Da, kanchi, chokhi, saw, small axe
Jaaladi & South Jaaladi, Shilkoop, Banskhali, Chakaria, Cox's Bazar	House works, agricultural work, small business, cooking, brick-kiln, general & bamboo nursery development, sewing	Basic skills in bamboo, various woven baskets, mats and household products	Da, kanchi, chokhi, saw, small axe, triangle frame
Central Cluster			
Bormon Para & Tomtomani Ninok (Shanti Niketon), Pargacha, Madhupur	General agriculture, banana, jackfruit, pineapple, vegetable, cow-goat rearing, poultry, carpentry, roof of house etc.	House, woven mat, basket, various household & handicraft products	Da, kanchi, boti, chokhi saw, piri, measuring tape, hammer

3. Assessment of existing land ownership & use, cultivation practices & crops, occupation & income etc

Land usage, cultivation practices and occupation were captured from this visit. These are important to understand how people use their lands and cultivate. It is also essential to have understanding on peoples' occupation and income in order to measure their economic condition.

Table: Existing land ownership & use, cultivation practices, occupation and income

Area	Land ownership	Land use practice	Cultivation practice	Occupation	Income range (Daily in BDT)
Sylhet Cluster					
Dolubari Muslim Para, Lawachara, Srimangal	Most of the villagers those who own few land and they use these as agricultural land. Most of the lands owns by city businessmen, political leaders, lemon/ pineapple businessmen etc.	Cultivation, housing	Rice, jute, tea, lemon, orange, jackfruit, pineapple, banana, vegetable etc	Agriculture, agricultural and other labor, small business, bamboo work	60-200
Siraj Nagar and Jibon Nagar, Lawachara, Srimangal	Most of the villagers those who own few land and they use as agricultural land. Few people own most of the lands; they are city businessmen, political leaders, lemon/pineapple businessmen etc.	Cultivation, housing	Rice, jute, tea, lemon, orange, jackfruit, pineapple, banana, vegetable etc	Agriculture, agricultural, and other labor, bamboo work, small business	70-120
Gazipur and Rajapur, Lawachara, Srimangal	Some rich people own lots of land. They are local businessmen, politicians etc. Most of the village people have very small lands for cultivation.	Cultivation, housing	Rice, jute, tea, lemon, orange, jackfruit, pineapple, banana, vegetable etc	Agriculture, agricultural and other labor, nursery, bamboo & other handicraft work	40-120
Ratanpur and Bagbari Satchari, Hobiganj	Most of the villager has few lands for cultivation and housing. Few numbers of rich people have lots of land and their profession is business and political leaders.	Cultivation, housing	Rice, jute, tea, jackfruit, pineapple, banana, vegetable etc	Agriculture, agricultural and other labor, small business, bamboo & cane work, sewing	100-250
Southeastern Cluster					
Bagan Para, Goalte Para, Hindu Para, Shah Saheb Gate, Chunati, Cox's Bazar	Those villagers who own a little land use this as agricultural land. A majority of the land owned is owned by the city businessmen, political leaders, and local	Cultivation, housing	Rice, jute, tobacco, banana, potato, onion, vegetable, fishery etc	Agricultural labor, rickshaw pullers, small service, brick-field labor, garment worker,	100-250

	businessmen etc.			bamboo work, and small business	
Jaaladi & South Jaaladi, Shilkoop, Banskali, Chakaria, Cox's Bazar	As above	Cultivation, housing	Rice, jute, tobacco, banana, potato, onion, vegetable, fishery etc	Bamboo works, agriculture and agricultural labor, small business, health worker, household work, sewing.	100-200
Central Cluster					
Bormon Para & Tomtomani Ninok (Shanti Niketon), Pirgacha, Madhupur	The major issue here is the land ownership problem. The villagers are from tribal community and they had lands and used to pay TAX on their lands until 2001; but afterwards the forest department declared these lands as "Khash Land". That is why these people are now landless although they are living on the same land and utilizing. They are fighting against it and trying to reclaim their land right back. Apart from this scenario, most of the villagers had their own lands and they use it for different agricultural purpose. There are few people they have huge area of land and they cultivate Pineapple, Banana, Papaya, Rice in it.	Cultivation, housing	Rice, jute, pineapple, jackfruit, tobacco, banana, papaya, potato, vegetable, fishery etc	Agricultural & day labor, handicrafts, bamboo & cane work, small business, carpentry etc.	50-120

Land leasing process:

Government land availability information is held by every Local A.C. Land Office, D.C. Office, Railway Office, and Forest Department etc. A formal application with detail information and reason of the land use purpose to the D.C. has to be submitted. The authority will take initiative to collect land availability information within his area and get back to you. Generally any govt. registered company/ organization can take lease of govt. land for maximum 99 years and for forestry purpose maximum 35 years after doing all necessary paper work with local A.C. Land Office. In the context this could be a lengthy bureaucratic process. Another leasing option could be to lease land from the Forestry Department in the area surrounding national parks (buffer zone), if government land were available then this would be an option, but currently this looks very unlikely.

4. Assessment of existing industry, products & market

There are industries like tea, milk, furniture, brick-kiln, garments in Sylhet cluster; fishery, poultry, jute, garments in Southeastern cluster and fishery, poultry, potato, garments in Central cluster.

5. Assessment of logistics, accessibility for sourcing raw material and infrastructure of utility & other services

Sylhet cluster: Road communication is very good in most of the rural village levels. Security from govt. departments is available. Electricity is available in thane level. Gas is not available except Srimangal town. Shallow and deep tube-well water supply is available in all areas. Availability of radio, television, land line phone, mobile, internet etc.

Southeastern cluster: Road communication is good but not enough good in most of the rural village levels. Security from govt. departments is available. Electricity from Power Development Board (PDB) is available in thane level. Gas is not available only. Shallow and deep tube-wells are available for water supply. Availability of radio, television, land line phone, mobile, internet etc.

Central cluster: Road communication is good but not enough good in most of the rural village levels. Electricity from Power Development Board (PDB) is available in thane level but not available in rural remote areas. Gas is not available. Deep tube-well is available for water supply. Availability of radio, television, landline phone, mobile, internet etc.

D. Conclusions

1. Assessment of existing knowledge base on variety, volume, quality, price, where grown, and potential main usage within Bangladesh.

Sylhet cluster: Wide variety of bamboo species. Bamboos with commercial potential (eg: Makal/Mahal/Mal/Bakal, Betua, Muli etc.) grows mostly in high volume. Average quality of these bamboos is generally good. Competitive cost of bamboo raw material is suitable of processing. The cost of raw (Makal/Mahal) bamboo material purchased on the open market is competitive (50-100 BDT/culm depending on the size and area) with that in two other major bamboo processing countries (Vietnam 80-130 BDT/culm; China 150 BDT/culm [source: INBAR website]). Best quality bamboo is found in forest hill area where bamboos are wildy grown on juicy fertile soil. Also good quality can be found in homestead areas in the villages those are cultivated and managed properly. Bamboo and bamboo based household products are being used every day in village life and the local market demand is increasing day by day.

Southeastern cluster: Wide variety of bamboo species is available. Medium volume growth of commercially potential bamboo (eg: Muli, Mitinga/Mita/Nita, Orah, Phaiya etc.). Bamboo quality is medium and price is higher than Sylhet (eg: price of Muli in Cox's Bazar is 10-15BDT where in Sylhet is 5-10BDT).

Central cluster: Very high volume growth of Tolla/Moral and low bamboo cost (Tolla: 50-70BDT). Quality of bamboo is good both in forest and homestead areas.

Overall: Volume of bamboo resource is decreasing day by day because of unmanaged sourcing for bamboo processing. Nationally we are short in bamboo resource.

2. Assessment of existing general skills for livelihood; skills and technology for bamboo processing

A variety of general skills is being observed in all areas. General agriculture observed as a common skill.

In Sylhet cluster: General and bamboo nursery, various vegetable gardening, lemon gardening is noticeable. There is some traditional bamboo community in Lawachara and Satchari and they have a range of bamboo skill. Some communities have received training on bamboo skill & nursery development but these didn't really roll into a profitable business for them because of lacking in marketing strategy. Skill on weaving products is stronger. Overall skill can be rated as basic production skill. They have no proper technology for bamboo processing; no proven treatment knowledge is known by them. They only use a few very simple tools for production. That is why they are not able to produce high quality production. Efficiency in production is not very good. (Example of a typical bamboo artisan: one person is producing 5 baskets from 1 Makal bamboo in 1 day (6 hours). Price of a bamboo is 120 BDT and the selling price for 5 baskets is 200 BDT @ 40 BDT/piece. And also another full day (approx. 4+4=8 hours) is needed for buying bamboo and selling products. Finally an artisan earns 200-120=80 BDT for 2 whole day work. Finally he is earning 40 BDT per day. Various general skills help the people to involve in different income generation work. NSP organized bamboo & Cane handicraft training in these areas.

In Southeastern cluster: General skills are same in both Chunati and Banskhalī like above in Sylhet. Bamboo skill is stronger in Banskhalī. A few number people are involved in woven mat production for local market. Strong weaving skill of the bamboo people represents common bamboo strength within the country.

In Central cluster: Wide range of bamboo skills gives potential product range. A few bamboo communities have received bamboo training from local NGO's. They are running small scale bamboo production and supplying into the markets in Dhaka and abroad. Skill in bamboo weaving is again stronger here. Various tribal traditional bamboo products are produced here and have demand in the local, national markets.

3. Assessment of existing land ownership & use, cultivation practices & crops, occupation & income etc

Sylhet cluster: A few powerful people in all above areas own large lands. Villagers who live on farming some own small piece of land to live and cultivation and mostly landless. Common cultivation practices for rice is seen all areas. Rice grows three times in a year. Lemons, orange, tea, tobacco, seasonal vegetables, fruits are being cultivated. Most common occupation is agriculture and agricultural labor. Small business, bamboo work is also found as popular occupation in all areas. Issues with land are a very common and critical problem for village people. Daily income rate is low which is between 40-140BDT depending on the work. Clear discrimination has been observed on wages payment for women labor. Female labors are getting lower rate from male labors. Moreover there is no every day work assurance for them.

Southeastern cluster: Land ownership trend and cultivation practices are similar in all areas. Issues with land are a common problem. Rice, jute, vegetables, tobacco are the main crops. Daily labor wages rate is between 100-250BDT depending on the work.

Central cluster: Most land owned by local powerful people. Farmers have very few lands for cultivation. A large tribal community is living around forest area and they have a massive land issue with Forest Department. Common cultivation practices have been observed. Rice, pineapple, papaya, banana, turmeric, sugar cane vegetables are grown here. Wages rate is low between 50-120BDT.

Land leasing: This looks impossible to lease land from Forest Department and do bamboo plantation in Sylhet and Southeastern cluster under current circumstances, but it's worth observing over the duration of the project to see if circumstances change.

4. Assessment of existing industry, products & market

Existing supply chains of other agro-based industries like mango, sugarcane, tomato etc. has been investigated. There is evidence of using cluster and plantation type models and this suggests that developing and implementing a model for Bamboo should be possible.

5. Assessment of logistics, accessibility for sourcing raw material and infrastructure of utility & other services

Sylhet cluster: Road communication is very good in all areas. Variety mode of transport and availability is suitable for accessing raw material. Best infrastructure among all sites visited.

Southeastern cluster: Main roads are fine but small roads inside resource areas are remote and hilly in Chunoti and moderate accessibility in Banskhal. Second best infrastructure.

Central cluster: Overall good road communication and transport facility in this area is observed. Third best infrastructure.

D. Recommendations and next steps

Generally Oasis recommends a review of these findings, followed by the development of a revised work plan for 2009, and the remaining four years of the IPAC program. A ranking of the locations reviewed for potential to develop Bamboo based business, with the best first, is as follows:-

Sylhet:

Lawachara & Satchari in Sylhet cluster are the places of highest potential for development of Bamboo based manufacturing.

1. Market research in Sylhet area with a view to getting some quick benefits, but in parallel to take an entrepreneurial approach which is to try to connect local products to local markets.
2. Develop a business model and plan for this area based around innovative value-added woven type bamboo products, and possibly non-woven products too (see 2 below).
3. Investigate the potential of non-woven bamboo products. A visit across the border into NE India to review their approach to adding value to local species, especially for domestic market consumption. For example it would be very useful to look at applications in the local construction industry (processed boards), charcoal production etc.
4. Work on access into US markets; it may be possible to take existing Oasis design concepts for European markets and adapt to US markets. Connect with other USAID market access projects in this process.
5. Develop a robust bamboo raw material supply chain strategy, involving training on bamboo cultivation and management in support of the above.

Southeastern cluster:

Chunoti and Banskhal have some potential as well as some limiting factors in Southeastern clusters. The following would need to be addressed before this could be progressed:

1. Attention needs to be given to community organization before this could be taken further, possibly led by other interventions within the IPAC project.
2. Development of Training strategy for bamboo nursery, cultivation and management and processing, in order to build a raw material supply base.

Central cluster:

Prigacha in the central cluster is the place of high potential for development of Bamboo based manufacturing. However there are issues with land accessibility here which is a main social problem for the inhabitants of this area needs to be resolved. There would be potential to develop business here, but the following issues would need to be addressed:

1. Building a relationship with and taking permission from the local tribal authority.
2. Building up relationships with the local community and develop some level of community organization.
3. Clarity of understanding “IPAC in not against them” needs to be established between IPAC and local tribal and other community
4. Working with the local communities in order to assist them in regaining their land rights.
5. It would be prudent to complete a survey in other locations in Central cluster to see whether there is greater opportunity, and fewer constraints in these areas.

Overall suggestions:

1. Establish strong market linkage and smooth supply chain mechanism for local stakeholders for quick return
2. Participate in trade shows for local market linkage
3. Based on the proposed market research in Sylhet, Hands On training for skill development could be organized, trainer could be from the same cluster or known sources other cluster sites. Sending people to North East India for training could be an option for longer term objectives into international markets
4. Awareness building training programs on why building sustainable bamboo resource base and why it is beneficial for local stakeholders

A key next step is to roll these findings into a timeline with activities, budgets, milestones etc. within June 2009.

Appendix – 1:

List of Bamboo species, with scientific and local names

[Source: Bangladesh Forest Research Institute (BFRI), Chittagong]

<u>Bamboo species</u>	:	<u>Local Name</u>
<i>Bambusa balcooa</i>	:	Barak, Borua
<i>Bambusa longispiculata</i>	:	Tolla, Makia
<i>Bambusa nutans</i>	:	Mal, Makhla, Mahal, Makal, Bakal
<i>Bambusa vulgaris</i>	:	Jai, Bariala, Bashni, Baijja
<i>Bambusa polymorpha</i>	:	Pharua, Bethua
<i>Bambusa tulda</i>	:	Mitinga
<i>Bambusa multiplex</i>	:	Konkoir
<i>Bambusa bambos</i>	:	Kata
<i>Dendrocalamus longispathus</i>	:	Orah
<i>Dendrocalamus giganteus</i>	:	Bhudum
<i>Dendrocalamus strictus</i>	:	Lathi
<i>Melocanna baccifera</i>	:	Muli, Paiya
<i>Oxytenanthera nigrociliata</i>	:	Kali
<i>Schizostachyum dulloa</i>	:	Dolu
<i>Dendrocalamus hamiltonii</i>	:	Pecha
<i>Melocalamus compactiflorus</i>	:	Lata

Appendix – 2:

Team Members:

Sylhet

1. Christopher Sarker, BDM, IPAC – Oasis Transformation Limited
2. Md. Abdul Jalil, Site Facilitator, Lawachara, Srimangal
3. Md. Aatur Rahman, Micro-finance & Grant Officer, Srimangal
4. Md. Azizur Rahman, Site Facilitator, Satchari, Hobiganj
5. Nekbar Ali, BDA, IPAC - Oasis Transformation Limited

Cox's Bazar

1. Christopher Sarker, BDM, IPAC – Oasis Transformation Limited
2. Baran Barua, Site Facilitator, Chakaria (formar Chunati), Cox's Bazar
3. Md. Helal Uddin, Site Accountant, Chakaria (formar Chunati), Cox's Bazar
4. Nekbar Ali, BDA, IPAC - Oasis Transformation Limited

Madhupur

1. Christopher Sarker, BDM, IPAC – Oasis Transformation Limited
2. Shital Kumar Nath, Site Coordinator, Madhupur Central Cluster
3. Fazana Mustakin, Communication, Outreach and Governance Facilitator, Madhupur
4. Lutmon Admon Koduna, Site Facilitator, Madhupur
5. Beli Chambugong, Field Organizer, Madhupur
6. Swapna Chishim, Field Organizer, Madhupur
7. Nekbar Ali, BDA, IPAC - Oasis Transformation Limited

Appendix – 3:
List of interviewee:

Sylhet Cluster

Participants list of inhabitants of forest and adjacent area in Lawachara: (Meeting – 1)
Visit date: November 23, 2008

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Ahad Ali	Dolubari Muslimpara	6	Samim	Dolubari Muslimpara
2	Siraj Mia	Dolubari Muslimpara	7	Amir Hossain	Dolubari Muslimpara
3	Jahangir	Dolubari Muslimpara	8	Chan Mia	Dolubari Muslimpara
4	Abdul Sukur	Dolubari Muslimpara	9	Ayub Ali	Dolubari Muslimpara
5	Samser Ali	Dolubari Muslimpara	10	Mosaber Ali	Dolubari Muslimpara

Participants list of inhabitants of forest and adjacent area in Satchari: (Meeting – 2)
Visit date: November 24, 2008

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Mahamudul Hassan	Deorgach	7	Rojina	Baganbari
2	Taher Mia	Ratanpur	8	Shirin Akter	Baganbari
3	Abul Kalam Azad	Ratanpur	9	Alauddin	Satchari
4	Iqbal Hossain	Ratanpur	10	Lalmia	Rajapur
5	Abdul Rahim	Ratanpur	11	Shajahan	Rajapur
6	Wahab Ali	Ratanpur	12	Kiron	Rajapur

Participants list of inhabitants of forest and adjacent area in Lawachara: (Meeting – 3)
Visit date: November 24, 2008

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Nepal Canrakar	Sirajnagar	8	Chanchala Ray	Rajapur
2	Beala Begom	Gazipur	9	Hafeza	Gazipur
3	Anjona	Rajapur	10	Moyna Begum	Gazipur
4	Shushil Chandra Ray	Sirajnagar	11	Sabiron	Gazipur
5	Samiran Ray	Sirajnagar	12	Juleka	Gazipur
6	Rajia Bagum	Gazipur	13	Josna Acharja	Rajapur
7	Chandra Banu	Jibonnagar			

Southeastern Cluster

Participants list of inhabitants of forest and adjacent area in Chunati: (Meeting – 1)
Visit date: November 25, 2008

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Md. Derar	Chunati Baganpara	15	Nepal Das	Chunati Sufipara
2	Md. Jabir	Chunati Bazar	16	Gura Miah	Chunati Sufinagar
3	Md. Nejamuddin	Chunati Baganpara	17	Sodram	Chunati Hindupara
4	Md. Amir Ahamed	West Chunati	18	Dulal	Chokoria
5	Md. Ayub	Sufinagar	19	Mohamudul Haque	Chunati Merial
6	Md. Aman-Ullah	Chunati	20	Unus	Chunati Baganpara
7	Abu Helal	Chunati	21	Ilias	Chunati Goalti Mora
8	Md. Usuf	Chunati	22	Md. Hossen	Chunati Sufipara
9	Samsul Alam	Gopaloti Mora	23	Swapan Day	West Chunati
10	Misbah Arefin	Chunati Baganpara	24	Shahed	Chunati Baganpara
11	Gopal Das	Chunati Dhupipara	25	Nurul Huda	Chunati Sufinagar
12	Md. Islam	Chunati Sufinagar	26	Ashraf Ali	Chunati Baganpara
13	Hiron	Chunati Hindupara	27	Abdul Sukur	Chunati Shah Saheb Gate
14	Ismaeel	Chunati Goaltipara			

Participants list of local community/CBO/religious leader, forest officer, small businessman etc. in Chunati: (Meeting – 2)

Visit date: November 25, 2008

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Jafar Ahmad	Chunati	8	Md. Jalal	Noakhali
2	Jamal Uddin	Chunati	9	Shamsul Alam	Chunati
3	Mohiuddin	Shatgohr Banbit office	10	Korban Ali	Chunati
4	Ahmad Fakir	Chunati	11	Abul Kashem Babul	Chunati
5	Taju Miah	Chunati	12	Nasir Uddin	Chunati
6	Nur Ahmad	Chunati	13	K. M. Morshadul Alam	Chunati
7	Abdul Karim	Chunati			

Participants list of inhabitants of forest and adjacent area in Banskhali: (Meeting – 3)

Visit date: November 26, 2008

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Selim	Shilkup	12	Sanjit Kanti Day	Shilkup
2	Jatindra Mohon Day	Shilkup	13	Sujit Borua	Shilkup
3	Ershad Ali	Shilkup	14	Usha Das	Jaldi
4	Krishna Chokraborti	Jaldi	15	Indrisha Das	Jaldi
5	Badiul Alam	Shilkup	16	Saiful Alam	Shilkup
6	Akter Hosen	Napora	17	Aman Ullah	Shilkup
7	Nurul Islam	Shilkup	18	Shamsul Alam	Shilkup
8	Nabi Alam	Shilkup	19	Maya Borua	Shilkup
9	Kabir Ahmad	Shilkup	20	Shagorika Borua	Shilkup
10	Badsha Miah	Shilkup	21	Ripu Borua	Shilkup
11	Madan Day	Shilkup			

Participants list of local community/CBO/religious leader, forest officer, small businessman etc.in Chunati: (Meeting – 4)

Visit date: November 26, 2008

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Md. Shajahan Choudhury	Jaldi	6	Mostafijur Rahman	CMC Member
2	Kaji Nur Mohammad	CMC Member	7	Solim Ullah	CMC Member
3	Prof. Md. Azizur Rahman	CMC Member	8	Binoy Krishna Rana	IPAC Sight Facilitator
4	Baron Borua	IPAC Sight Facilitator, Chunati	9	Md. Helal Uddin Ahmad	IPAC Chokoria
5	Rafik Ahmad	CMC Member			

Madhupur Cluster

Participants list of inhabitants of forest and adjacent area in Madhupur: (Meeting – 1)

Visit date: January 20, 2009

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Komola	Pirgaccha	21	Satta Rani	Pirgaccha
2	Defuli	Pirgaccha	22	Jotsna Rani	Pirgaccha
3	Utpola Chiran	Daborpara	23	Parboti	Pirgaccha
4	Sima Chiran	Pirgaccha	24	Dipali	Pirgaccha
5	Momota	Pirgaccha	25	Shila	Pirgaccha
6	Austina Chiran	Pirgaccha	26	Bitno Nokrek	Pirgaccha
7	Ijjani	Pirgaccha	27	Sunil	Pirgaccha
8	Shefali	Pirgaccha	28	Abit	Pirgaccha

9	Bina Rani	Pirgaccha	29	Momota	Pirgaccha
10	Ahala Rani	Pirgaccha	30	Nupur	Pirgaccha
11	Sarswati	Pirgaccha	31	Parboti	Pirgaccha
12	Shem	Pirgaccha	32	Bobita	Pirgaccha
13	Madhuri Chiran	Pirgaccha	33	Md. Jodal Ali	Hagurakuri
14	Jetomi Mebri	Pirgaccha	34	Sree Kanindra Bormon	Pirgaccha
15	Saraswati	Pirgaccha	35	Amjad	Hagurakuri
16	Luna	Agrakhari	36	Dipak Chandra	Pirgaccha
17	Varati	Pirgaccha	37	Toruni Kanto	Pirgaccha
18	Sampa	Pirgaccha	38	Anisur Rahman	Pirgaccha
19	Dipali Barman	Pirgaccha	39	Neuton	Pirgaccha
20	Rabita Rani	Pirgaccha			

Participants list of local small businessmen in Madhupur: (Meeting – 2)
Visit date: January 20, 2009

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Md. Jodal Ali	Hagurakuri	5	Toruni Kanto	Pirgaccha
2	Sree Kanindra Bormon	Pirgaccha	6	Anisur Rahman	Pirgaccha
3	Amjad	Hagurakuri	7	Neuton	Pirgaccha
4	Dipak Chandra	Pirgaccha			

Participants list of local community/CBO/religious leader, forest officer etc.in Chunati:
(Meeting – 3)
Visit date: January 21, 2009

Sl.No.	Name	Address	Sl. No.	Name	Address
1	Lutmon Edmond Poduma	IPAC Madhupur	8	Md. Abdus Samad	Imam, Sholakuri Mosque
2	Alin Mrong	St. Paul Church, Pirgaccha	9	Jui Maria Mri	IPDS, local NGO worker
3	Bivuti Nokrek	Beduria	10	Sulekha Mrong	Vutia, Pirgaccha
4	Swapna Chisim	Gacchabari	11	Binita Nokrek	Pirgaccha
5	Beli Chambugong	Jalcchatra	12	Nilima Mri	Chunia
6	Farjana Mustahid	IPAC Madhupur	13	Semita Rema	Thanarbaid
7	Md. Joader Ali	Imam, Jagurakuri Mosque			