Project Overview

The Mekong Bamboo Consortium

A collaborative platform for sector development

March 2007

1 Summary

The MBC's objective is to reduce poverty at scale by creating income and jobs from new opportunities in a pro-poor bamboo sector in Vietnam, Laos and Cambodia through:

- Businesses and Markets. Supporting businesses at all levels of the market chain by mobilising start-ups, technology and management transfer from China, business services and information systems, international and domestic business facilitation, credit lines, trade fairs;
- Farmers and Resources: To support smallholders to produce bamboo efficiently and competitively in the market by supporting training, field trials, traceability systems and agricultural development
- Policy and research: Supporting government at local and national levels to create positive business and rural development environments by supporting research studies, exchange visits to China, training of officials, support to national and local policy and plan development;
- Coordination & management: Ensure linkages between partners by providing staff resources to support on project linkages, methodology, sharing, information management and dissemination.

MBC is a market driven initiative designed to function effectively in a rapidly evolving market place. Its success relies on being able to respond to opportunities and threats as they emerge.

MBC differs significantly from a typical value chain project in terms of scale - it attempts to deal with a sector across a region. The project addresses one of the main criticisms of value chain approaches – impact at scale. The MBC project creates a multi-agency platform to develop and replicate practices in the region. In doing so, the project builds replication into its design.

The MBC project is based in a market strategy approach. The project's primary investment justification is based in strong market assessment of current and medium term competitiveness which shows that poor communities which grow bamboo in the region are in potentially strong competitive positions against other global producers[1]. Donor investment to develop the sector is therefore justified.

The MBC will be split between *Core* and *Associate* activities. The MBC Core will directly manage critical project activities, and support and coordinate the work of the Associate agencies in the three countries. MBC Core will be a collaboration of government, donors and technical agencies. MBC core and each country programme will have its own steering committee with representatives from all major partners.

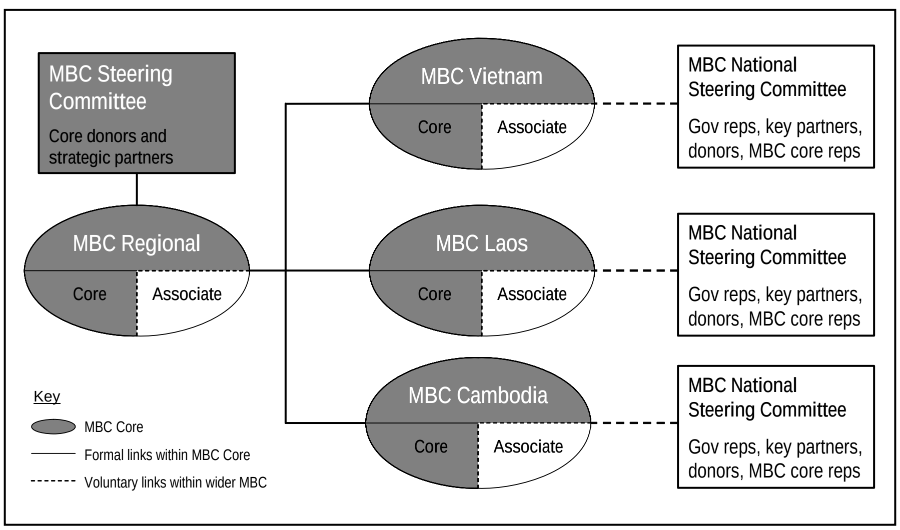

Figure 1: MBC Management Structure

[1] Compared to the major producer, China, labour (1/3 China) and raw bamboo (2/5 China) comprise 75% of total production cost.

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2 Background and Rationale

2.1 The Problem

Despite their "economic miracle", 17 million Vietnamese people still live in extreme poverty.[2] Thirty-five percent of Cambodia's 13.9 million[3], and 33.5% of the 6.3 million[4] Laotians are below the poverty line. In these countries, more than 22 million live in dire poverty and another 20-30 million live marginally above the poverty line. Poverty rates are the worst in upland and remote rural and ethnic communities.

In mountainous Vietnam near the Laos border, in Tuong Duong and Ky Son Districts a staggering 75% and 87% live below the poverty line. The causes of this deep and persistent poverty are numerous and the absence of relevant markets for poor rural communities are a key factor. Tuong Duong and Ky Son and other poor areas are indicative of those communities that will benefit from this project.

2.1.1 An Opportunity: Using the Bamboo Market to Tackle Poverty at Scale

The growing USD 7 billion global bamboo market promises significant opportunities for rural communities. Bamboo is an environmentally sound industry which is providing new substitutes for wood and fibre products in the global marketplace. Bamboo market growth is fuelled by international and domestic demand for a new generation of bamboo products such as flooring, building products, furniture, charcoal, bamboo shoots, homewares, paper and pulp and new products such as fibre, clothing and activated carbon.

There is strong evidence from China that the bamboo sector can be a pioneering industry for widespread poverty reduction and economic development[5]. As the first trial to replicate the success of China's bamboo industry at a regional scale, this project will test the opportunities for replication in other regions.

2.2 Work to Date

Since 2004, the Mekong Private Development Facility (MPDF) and more recently Oxfam Hong Kong (OHK) have led a pilot bamboo value chain project in Thanh Hoa province, Viet Nam (The Pilot). Since late 2005, OHK and MPDF have jointly completed a sector feasibility study and have begun to scale up the project to a regional level.

Major poverty related impacts to date are associated with the Thanh Hoa supply chain. Eight local entrepreneurs have begun new copy-cat workshops replicating project trials. Today, these and other workshops buy bamboo from 4000-6000 smallholders, they have a combined output of USD280,000 per month and have contributed to a 20% increase in farmgate price of bamboo in 2006 (equivalent to a 4% annual rise in average household income). Of the 539 staff employed in the workshops 88% are ethnic minorities, 85% women and salaries are USD450p.a. in an area where the local average is <USD100p.a.. Replication of the pliot approach has now been started in a new location elsewhere in Vietnam

Oxfam Hong Kong and IFC-MPDF have invested more than USD800,000 since late 2004 in the project. There are currently no coordinated efforts to support the development of a diversified bamboo sector on a large scale in the region. MBC has made considerable efforts to identify activities in the region. The vast majority of major agencies working or interested in the sector have begun collaborating with MBC.

[2] World Bank, *Vietnam Development Report 2004*, http://www.worldbank.org.vn
[3] Tim Conway, How the Poverty Line and Poverty Rate are Calculated, *Cambodia the World Bank Newsletter*, Volume 3, Number 12, December 2005, http://siteresources.worldbank.org.
[4] Lao's People Democratic Republic, *Sixth National Socio-Economic Development Plan (2006-2010)*, http://www.unlao.org
[5] Ruiz Perez and Belcher (2001). A comparison of bamboo production systems in six counties in China; in Fu Maoyi, Ruiz Perez and Yang, *Socio-economic, marketing and policy of the bamboo sector in China*, Beijing, China Forestry Publishing House

The next stages of the project as outlined will develop the full potential of the sector in the region.

2.3 Rural Investment Climate

Vietnam's business environment is improving all the time. Although their 2006 rankings for 'Ease of Doing Business' (World Bank) are 99 and 91 respectively, Vietnam ranked 3rd in the world for 'top reformers'. Reforms of land use and business laws have paved the way for Vietnam's rapid economic growth.

Laos has made some progress in recent years in improving its business environment, yet it remains a challenging environment investment. Laos ranks 147th in the latest World Bank 'Ease of Doing Business' ranking, close to Cote d'Ivoire (145), and Mali (146) but worse than Vietnam (99) and Cambodia (133).

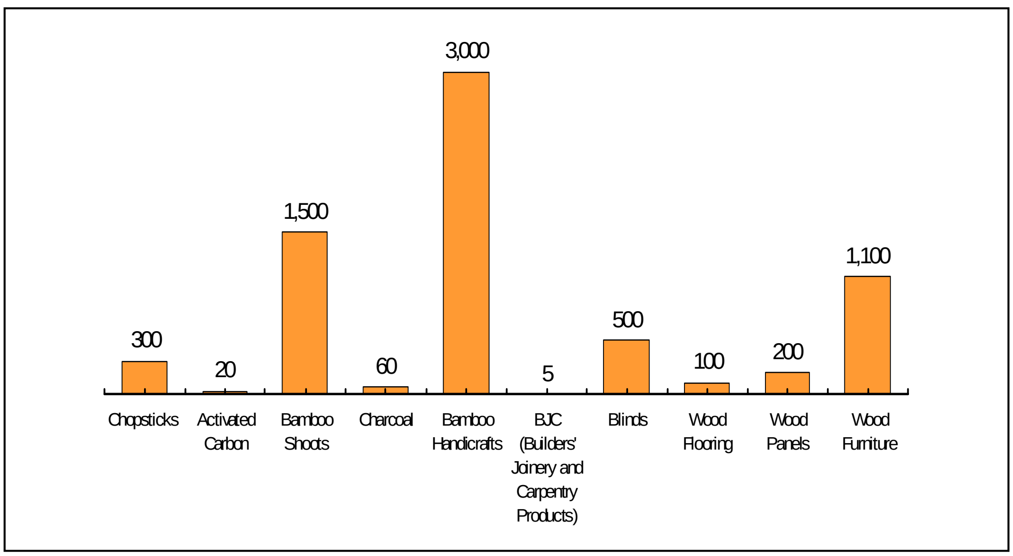
Cambodia currently ranks 133 in the World Bank 'Ease of Doing Businesses' ranking, surrounded by the likes of Haiti (134) Angola (135) and Sierra Leone (136). The absence of significant manufacturing industries, outside of the garments sector, is characteristic of this position.

2.4 The Market

2.4.1 Current Market

The world market for bamboo products is USD 7bn+ p.a.[6] (Figure 1). Traditional products account for almost 95% of this by value. Newer industries will begin to rival traditional bamboo markets over the medium term.

Figure 1: Current size of selected World Bamboo Markets (USD m)



Source: OHK-MPDF Mekong Bamboo Feasibility Study

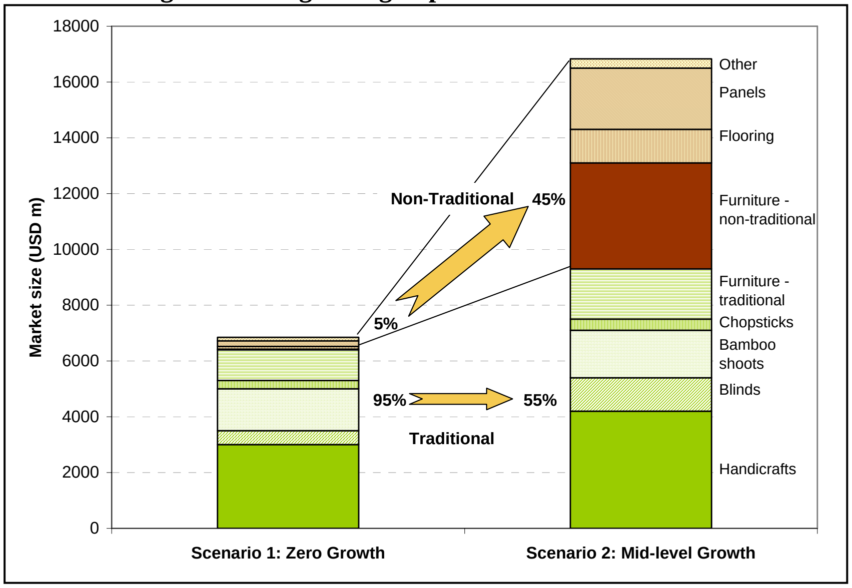
Emerging bamboo markets, particularly wood substitutes, have been pioneered by Asian producers and include flooring, panels and furniture (non-traditional). These represent the largest growth opportunities for bamboo (Figure 2). Strong world (& Chinese) demand and China's productive capacity and exports have produced a structural change in the wood industries. Increased restrictions of certified timber supply create a positive market outlook for bamboo. Additional niche market opportunities exist for processed bamboo charcoal and bamboo activated carbon. Overall prospects for a diversified bamboo sector look strong.

[6] OHK-MPDF conducted the first global market sizing of the bamboo sector. Including: handicrafts, bamboo shoots, chopsticks, blinds, flooring, furniture, panels, builders' joinery & carpentry, charcoal and activated carbon. Excluding paper/pulp and unprocessed bamboo used in construction and household uses.

2.4.2 Future Markets

Growth rates for bamboo products are highest in the emerging wood-substitute based markets (e.g. flooring, panels and furniture). The scale of future demand for bamboo products will be driven by global growth rates and penetration of bamboo products into the broader global markets. Our sector scenario analysis leads us to the conclusion that the scale of the global bamboo market will be of the order of USD15-20Bn by 2017.

Figure 2: The growing importance of the new bamboo markets[7]



2.4.3 Mekong Markets

Current market size in the Mekong is US$250 million p.a., employing 400,000. The feasibility study indicated that owing to current competitiveness and the performance of other sectors into global markets, growth to a US$1.2Billion pa with total employment levels of 1million is a realistic projection.

2.4.4 Trade Context

Tariff barriers for bamboo products are not high for key markets and no extremely high tariff rates apply. For ASEAN and China, most tariffs affecting bamboo goods from Vietnam, Laos and Cambodia are scheduled to be eliminated by 2015 under the ASEAN Free Trade Area (AFTA) and ASEAN China Free Trade Area (ACFTA) No bamboo products fall under the General Exception List. For the US and EU, tariff rates are mostly in the range of 0 - 7%. Laos is now the only one of the three countries that is not a member of the WTO. Non-tariff barriers are not expected to create major market barriers to regional cross-border trade for bamboo products.

2.5 Current Bamboo Resources

Vietnam: Between 1983 and 1999 the reported are of bamboo remained relatively constant at 1.4 millions hectares in mixed and pure bamboo forests. During the same period the area of planted bamboo had increased to 75,000 ha. from 46,000 ha. Current estimates of planted areas are now approx. 110,000 ha.

Laos: Data from 1989 suggests that across the country there was 1.5 million ha of pure bamboo forest, split 45% in Northern Region, 33% in Central Region and 22% in Southern Region. Natural bamboo is the main source of bamboo and there are only very limited areas of cultivated bamboo.

Cambodia: Bamboo resources are almost certainly in steep decline, although reliable data on current resources does not exist. In 1960, bamboo was estimated to account for 387,000 hectares, or 3 % of the total forest area. Forest Administration interpretation of Landsat data from 2002-2003 suggests that bamboo now covers only 28,000 hectares, a reduction of around 90% (but data should be used with care).

[7] Furniture is split between 'traditional' bamboo furniture that accounts for almost all of the current bamboo furniture market and 'non-traditional' bamboo furniture such as laminated bamboo furniture where there is likely to be the majority of growth for bamboo within the 'global' wooden furniture market.

2.6 Vision of Success

The vision is to lead the emergence of a vibrant, diversified, internationally competitive bamboo sector in the region that provides a pro-poor financial impact in the order of USD 1 billion annually and employs around 1 million people.

2.6.1 Steps to Achieving our Vision

The key steps to achieving this include:

- Creation of a multi-partner Mekong Bamboo Consortium (MBC)
- Support of national and local level government partners to enhance the policy environment;
- Facilitation of widespread investment in processing and marketing businesses in the sector;
- Expansion and intensification of bamboo production by small scale farmers.
- Facilitating the linkage of international business to the opportunities in the sector;
- Transfer of technology, market development and policy expertise from China;
- Support to critical input markets (including for example finance and land markets).

2.7 Key Actions of the MBC Project

Competitiveness of processors is a barrier to sector success and must be overcome in the Mekong sector. In order to grow, the Mekong sector must be able to compete in international markets.

Competitiveness and efficiencies require supply chain innovations. Working with businesses to re-organise critical aspects of the chain can releasing substantial value that is currently not being realised due to inefficiencies. Shifting bamboo resource utilisation rates from current 30-40% to 90% is required.

Supply chain innovation and expansion requires external facilitation. Individual businesses cannot afford the risk or the costs of attempting to transform the wider sector on their own.

3 Project Objectives

See Table in Appendix A

4 Project Design and Implementation Plan

4.1 Strategic Design Elements of the Project

MBC is a market driven initiative designed to function effectively in a rapidly evolving market place. Its success relies on being able to respond to opportunities and threats as they emerge.

MBC differs significantly from a typical value chain project in terms of scale - it attempts to deal with a sector across a region. The project addresses one of the main criticisms of value chain approaches – impact at scale. The MBC project creates a multi-agency platform to develop and replicate practices in the region. In doing so, the project builds replication into its design.

The MBC project is future oriented and is based in a market strategy approach. The project's primary investment justification is based in strong market assessment of current and medium term competitiveness conducted in earlier phases. This work shows that poor communities which grow bamboo in the region are in strong competitive position against other global producers[8], now and into the medium term (10 years). Donor investment to develop the sector is therefore justified.

4.2 Project Design and Major Activities

Activities will be organised as shown.

Figure 3: MBC Activities

	Vietnam	Laos	Cambodia	Regional	*Key Focus*
Businesses & markets	• Supply chain pilots • Investment promotion • Technology & mgt dissemination • Market access • Access to finance	• Supply chain pilots • Investment promotion • Technology & mgt dissemination • Market access • Access to finance	• Supply chain pilots • Investment promotion • Technology & mgt dissemination • Market access • Access to finance	• Market Research • Technology adaptation • Standards development • FDI promotion	Development of 3 distinct industry groups: • Handicrafts • Industrial processing • Bamboo shoots
Farmers & resources	• Awareness promotion • Farmer extension & support • Production pilots and trial	• Awareness promotion • Farmer extension & support • Production pilots and trial	• Link to community forestry plans • Farmer extension & support	• Knowledge sharing • Resource planning coordination	Intensification and expansion of bamboo production to meet expected future demand for commercial species.
Policy & research	• Provincial dev. plans • National policies & plans • Business environment	• Local sector development plans • Business environment • Farmer & forestry policies	• Business environment • Land use / farmer context • Integration into local development plans	• Regional& int'l trade promotion. • Impact monitoring • Knowledge sharing	National & local policies & planning to stimulate the parallel growth of: • markets & industries • farmers &resources
Co-ordination & management	• VN dev. aid coordination and promotion • Vietnam networks • Project & policy co-ordination	• Laos dev. aid coordination & promotion • Laos networks • Project & policy co-ordination	• Local dev. aid coordination and promotion • Cambodia networks • Project & policy coordination	• Inter-country programme coordination • Regional dev. aid coordination • International networks	Pro-active leadership of: • Project and policy coordination. • Development aid coordination. • Network facilitation

[8] Compared to the major producer, China, labour (1/3 China) and raw bamboo (2/5 China) comprise 75% of total production cost.

4.2.1 Businesses and Markets

The main activities will include:

Investment

1. Targeted investment promotion including investor visits, trade shows, on-line and other marketing to potential investors, and leveraging other official and government investment promotion activities.
2. Improving Access to Finance (A2F) for enterprises along the supply chain by:
   a. leveraging existing SME financing projects (e.g. MPDF Financial Sector Programme)
   b. assessing the needs for finance within the sector and current barriers to accessing finance
   c. Supporting mainstream financing by funding risk sharing and demonstration activities

Competitiveness

3. Supply chain pilots to demonstrate commercially viable models across the region. Activities include demonstration businesses, facilitating supply chain innovations, farmer raw material supply.
4. Technology and management transfer and dissemination to encourage the widespread adoption of improved operational practices. These will initially focus on technologies and practices from China.
5. Business management capacity to improve management of businesses, facilitate easier access to finance and encourage innovation and growth. This will include support to local business service providers including financial and other business management services.
6. Branding, quality and standards improvements linked to specific market opportunities where value can be added to existing products via this approach.

Market infrastructure

7. Linking buyers and suppliers through:
   a. Export promotion and buyer linkages to attract competition amongst buyers for local products
   b. Business directory development to improved links between suppliers and buyers
   c. Strengthening of domestic marketplaces (e.g. electronic, local wholesales/farmer markets)
8. Improving access to information on the market and technical issues. New businesses will gain access to appropriate information to operate effectively, primarily via demonstrations & pilots.
9. Development of effective business networks and associations. Bamboo associations at the local or national level and linkages through existing business forums or chambers of commerce.
10. Development of input suppliers and service providers to meet demand from growing sector (e.g. equipment suppliers. Chinese equipment manufacturers to expand their distribution networks).

Market Research & Development

11. Detailed analysis of potential markets, including quantitative assessments of demand, price, quality requirements, major customer segments and channels to market. To be distributed widely.
12. Competitor analysis and benchmarking with other producer regions to identify strengths and weaknesses as well as appropriate areas for action. To be distributed widely.
13. Market development strategy design for priority markets to inform the selection and design of pilots and other activities within MBC. (eg accessing the bamboo shoots market in China).
14. Product standard development or certification where needed for market entry (e.g. structural building products in the EU & US construction industries). Work to be market and product specific.

4.2.2 Farmers and Resources

Widespread, sustainable, smallholder-based production of valuable bamboo species is essential for achieving the goal of MBC. The two main approaches to develop the resource base are Intensification of production of bamboo from existing bamboo areas, and expansion of the area under bamboo production.

The approaches must be replicable by farmers without direct financial support from donors if they are to be adopted on the scale necessary to support the sectors growth.

Approaches must complement current livelihood and farming systems rather than require dramatic changes at a household level. Approaches for intensification and/or expansion of bamboo production must:

- reflect the financial and technical constraints of smallholders,
- balance short and longer term income needs of farmers, and the impacts on household income of the transition from short term crops to bamboo production over several years,
- promote complementary livelihood activities or agricultural production that diversifies income and builds synergies with bamboo production.

These considerations will guide the following activities:

15. **Widely demonstrate good practice in sustainable smallholder production** and engagement in commercial supply chains, with an emphasis on practices that are easily replicable by other farmers
16. **Testing and evaluation of different extension delivery systems** to achieve expansion/intensification of production/harvesting. Collaborations with Governments agencies are key.
17. **Investigation of environmental impacts** of bamboo cultivation, harvesting and rural processing will be completed both through supply chain pilots and research activities. Issue to be investigated include impacts on biodiversity, soil erosion and catchment health, and carbon sequestration.
18. **Promotion of local input providers** to meet demand (e.g. nurseries, agro-chemical suppliers), similar to that for suppliers of inputs and services to business above.
19. **Development of virtual 'centre of excellence' and resource network** on bamboo production and smallholder development to act as central knowledge base for the region. It will:
    - Build a practical knowledge base and team of expertise that is readily accessible for other implementing partners.
    - Document, adapt and test best practice on agro-forestry for bamboo, farmer extension delivery systems, and financial services for inputs.
    - Foster the development of a cadre of experts in the region who can advise and support agencies working in the sector. The centre will be a conduit with global practice leaders elsewhere.
    - Be a primary mechanism for replication by other consortium organisations in other locations. Effective replication is critical to achieving scale of impact.

4.2.3 Policy and Research

The MBC includes government policy making bodies as the project partners. Government policies and practices relating to rural businesses, agriculture and forestry are essential for creating appropriate conditions for a competitive sector. The provincial level will be the most important for the MBC project. Current partners include the Vietnamese governments Institute for Policy and Strategy for Agriculture and Rural Development or the Cambodian Forest Administration's Community Forestry Unit. The MBC will facilitate the sharing of policy development experiences across the region.

Activities include:

20. Improving the enabling environment for bamboo smallholders.
21. Improving the policy and operating context for businesses in the sector
22. Promoting awareness of sector potential among key decision makers to facilitate the development of an enabling environment for sector growth, through:
    - Study tours for key personnel to leading bamboo areas, both within the regional and Internationally
    - Evidence based, targeted policy briefings
    - Customized pilots and demonstration highlight key issues and opportunities in the local context.
23. Research on key issues affecting the sector (e.g. impact of specific policy measures)
24. Evidence based advocacy on key policy issues affecting the sector e.g. State Forest Enterprise reform. The work to date has already indicated the negative implications of current policy.

4.2.4 Coordination and Management

MBC is a collaboration platform. To achieve impact at scale, MBC will develop a network of operating relationships working with partners from government, development agencies, the private sector and farmers' groups. This requires strong coordination of activities, pro-active knowledge sharing and an emphasis on evidence based decision making and prioritisation. Benefits for collaborators may take many forms but will include such things as technical assistance, information sharing or co-financing of activities.

The management of the project is described in detail in the following section, but key activities will include:

- Project and policy co-ordination across all MBC activities and partners will be underpinned by routine information sharing and discussions:
    - circulation of key MBC wide management information to all active partners, giving details of main activities, outputs and impacts
    - periodic meetings of Consortium members to review progress and coordinate future activities
    - regular contact and visits of MBC core team to all pilots and partners
- Network facilitation:
    - implementation of an internal communication plan to facilitate the multi-directional flow of information between partners including electronic discussion forums, newsletters and website for posting of reports and comments.
- Development aid co-ordination and promotion at both a national and regional level. This will help link interested donors with priority activities of MBC partners.
- Impact measurement and documentation is a critical part of the MBC strategy and is describe in detail in the section below.
- Replication and wider dissemination of key lessons and experiences will be actively pursued. We have already had several requests to support replication in other regions, including South Asia,

Philippines, Indonesia, but this will be pursued once we have greater experience of large scale replication in the Mekong. Dissemination activities are expected to include:
- conference presentations
- publications of a range of public documents aimed at different audiences, from technician to investors, policy makers to donors
- hosting of study tours
- providing technical assistance or other support to replication efforts elsewhere.

4.2.5 Sub-Sector Supply Chain Pilots ("pilots")

Supply Chain Pilots will be the primary location of activity of the MBC. The underlying strategy is to achieve impact at scale by demonstrating commercially viable models to businesses, traders and farmers in multiple locations linked to specific market opportunities.

Pilots will be implemented in 3 sub-sectors (Industrial Processing, Handicrafts, Bamboo Shoots)

Pilots will be implemented in 3 countries (Vietnam, Laos, Cambodia).

Pilots will target specific market opportunities that the local sector can compete in effectively and win sufficient business to support a viable supply chain. The Pilots will:

- target specific identified demand that exploits local competitive potential
- demonstrate improved approaches to production and supply chain structures that enhance competitiveness and benefit smallholders and poor communities
- promote investment in priority businesses areas or locations, but avoid direct financial subsidies to businesses
- work with key buyers and secondary processors in parallel to primary processing workshops, traders and smallholders to build confidence and reduce risks during early stage supply chain development
- promote the development of both the business sectors and the bamboo resource base to meet demand
- respond to issues that emerge in the market and supply chain
- gain the support of local authorities to facilitate more enabling operating environment
- be managed as a distinct project by an MBC Core or Associate partner who has strong local knowledge and networks and manage relationships with local authorities.

Supply chain pilots currently planned or under investigation include:

1. Industrial Processing: Thanh Hoa, Vietnam (GRET)
2. Industrial Processing / Bamboo Shoots: Phu Tho / Yen Bai, Vietnam (Hadeva/GRET)
3. Industrial Processing: Hoa Binh, Vietnam (SADU)
4. Industrial Processing: Provinces surrounding Cat Tien National park, Vietnam (Winrock)
5. Industrial Processing: Quang Ngai, Vietnam (RUDEP - AusAID)
6. Industrial Processing: Quang Nam / Dak Lak, Vietnam (GTZ)
7. Bamboo Shoots: Nghe An, Vietnam (OHK)
8. Handicrafts: Ha Tay, Vietnam (TBC)
9. Industrial Processing: Houaphan, Laos (OHK / SNV)
10. Industrial Processing: NW Provinces of Laos (GTZ)
11. Handicrafts (Baskets): Kampong Chnnang, Kampot, Vientiane Province (WB PRMGE)

4.3 Project locations and target populations

The project will be implemented in Vietnam, Laos and Cambodia. Current candidate supply chain pilots cover 16 provinces and this number is expected to increase over time.

Bamboo is best suited to mountainous and remote rural areas where poverty rates are also worst because it is most competitive against other crops when grown on sloping or marginal land or harvested from natural forests. For example, in mountainous Viet Nam near the Laos border, in Tuong Duong and Ky Son Districts a staggering 75% and 87% live below the poverty line (local poverty line). Tuong Duong and Ky Son and other poor areas are indicative of those communities that will benefit from this project.

These area have significant ethnic minority populations. For example, in the current initial pilot in Thanh Hoa, more than 80% of the workers in the rural workshops and smallholders supplying bamboo are from ethnic minorities.

At least 80% of employment creation is expected to take place in rural areas, with 25% - 30% in more remote and upland areas. Within the sector, more than 50% of employment is expected to go to women Further details of expected impacts from different sub-sectors are given in Figure 4 below.

Impacts will accumulate over time and achievable growth rates have been informed by the performance of comparable sectors. For example the wood furniture sector which has grown from USD 12m in 1999 to USD 1.1bn in 2004 and USD 2.2bn in 2006, a sustained average annual growth rate >90% p.a. over the last 8 years with current growth rate of 38% p.a. (Source: ITTO).The following sector growth rates are assumed for the bamboo sector: Years 1-3 = 4% p.a., Years 4-6 = 10% p.a., Years 7-10 = 28% p.a.

The growth in absolute numbers of beneficiaries will lag behind the growth in output value from the sector. This is because a significant proportion of the early sector growth will be driven by increased productivity and efficiency within the sector. This growth will deliver significant income benefits to existing smallholders but will gradually lead to increases in the numbers of smallholder involved. Planted bamboo takes 3-5 years to mature which will limit numbers of those benefiting from the sector in the short term.

4.4 Beneficiary Numbers

By 2017, an estimated[9] 300,000 households (>1.5 million people) would be lifted out of poverty based on the expected impacts of the sector summarised in Figure 4.

By 2010, an estimated 12,000 household (60,000 people) are expected to be lifted out of poverty based on the estimated sequencing of growth.

Figure 4: Potential impact from the sector

Bamboo Sub-sector	Overall impact	Impact scale			Impact efficiency			Gender bias of impact % of FTEs to women	Rural bias of impact % of rural FTEs	Environ-mental Impact
		Pro-poor financial impact $m	Total financial output $m	Job creation FTE (000's)	Pro-poor financial impact $/ha	Financial output $/ha	Job creation FTE/ha			
Handicrafts	*****	*** 266	*** 336	***** 920	***** 11,300	***** 14,300	***** 39.2	***** 60%	***** 95%	*****
Bamboo shoots	**	** 111	* 136	* 16	***** 3,100	***** 3,800	* 0.4	* 30%	***** 100%	****
Industrial Processing	*****	***** 532	***** 716	**** 296	** 1,113	** 1,498	*** 0.6	*** 45%	*** 62%	***
1.Premium Processing	****	*** *263*	*** *340*	*** *129*	**** *2,400*	**** *3,100*	**** *1.2*	**** *49%*	** *35%*	***
2.Medium Value Processing	***	** *163*	** *190*	*** *123*	*** *1,037*	** *1,333*	*** *0.9*	**** *46%*	**** *72%*	***
3.Low value & bulk processing	*	* *46*	* *126*	* *20*	* *455*	** *1,050*	* *0.2*	** *37%*	**** *81%*	***
4.Raw bamboo	*	* *60*	* *60*	* *24*	* *360*	* *360*	* *0.1*	* *31%*	***** *100%*	****
Total		909	1,185	1,232	1,690	2,203	2.3	56%	87%	

4.5 Community Participation

The needs of local businesses and bamboo growers have determined the overall project design through experience from the initial pilot in Thanh Hoa, Vietnam. Each of the MBC pilots will work with local businesses and smallholders to identify opportunities and constraints to the sectors.

The changing needs of smallholders and businesses will continue to drive activities of the pilots and overall project so that the priorities remain relevant to those involved in the sector. This will be achieved by maintaining close relationships with smallholders and enterprises along the supply chain.

The project will strengthen farmer and business networks to better represent their own interests, both within the MBC and in policy decisions at the local and national level.

9 By considering the likely location of employment creation and smallholder incomes, the current poverty rates in those areas and the overlapping impacts of waged labour and farm income at the household level

4.6 Scalability and Replication

MBC is itself designed to achieve large scale replication of the approaches from the initial pilot and experiences in China. As the first such attempt, MBC will provide critical lessons on how this can be achieved and the necessary conditions for success to inform replication in other regions.

MBC will also demonstrate an approach that can be applied to groups of priority market sectors which drive targeted pro-poor economic development and achieve poverty impacts at scale. There are two basic models to be developed to achieve the end-state of widespread market portfolios at scale:

- Model 1 – taking <u>single sectors</u> to scale in country/region, :
- Model 2 – developing <u>multi-market portfolios</u> in a specific province/region.

There is already significant interest amongst donors and agencies for replication of the MBC approach into other sectors and locations. Various initiatives are under development with strategic partners. Specific interest to date includes:

Multi market portfolios:	• Quang Ngai Province, Vietnam (AusAid, IFAD , OHK, GoV MARD, Province) – Phase 1 studies approved • Application to other Province in the region currently under discussion with partners
Single sector approaches:	• Tourism – Mekong (IFC MPDF, OHK) • Biofuels – Mekong (IFC MPDF, OHK)
Requests to support replication outside the region:	• Bamboo – South Asia (IFC, SNV) Philippines (IFC) • Tourism – Middle East North Africa (IFC)
Requests to present the core approach at training events for:	• Inter-donor forum on Private Sector Development (Jordon, 2006) • Swiss Dev Agency – Private Sector Development team training workshops (Bern, Jan 2007) • AusAid - PSD team (Canberra, Feb 2007) • GTZ – Value Chains for Broad based Development Conference (Berlin, May 2007)

4.7 Sustainability

Sustainability of impact is built on demonstrating commercially viable businesses and supply chains at a local level that target actual demand in diversified end markets and on a wider basis by building momentum in a number of provinces and supply chains at the same time. While subject to normal competitive pressures, this reduces the risks from any individual business or supply chain failing. Underpinning this is that demonstration businesses are owned and operated by local entrepreneurs on an independent, commercial basis from the very beginning. Technical assistance is provided for the transfer of new or improved technologies or business practices, but only to the minimum extent needed to ensure successful transfer and limit hidden subsidies.

Sustainability of sector support is achieved by the collaborative approach at an institutional level that will develop a broad-based network of agencies and experience to support the sector's development.

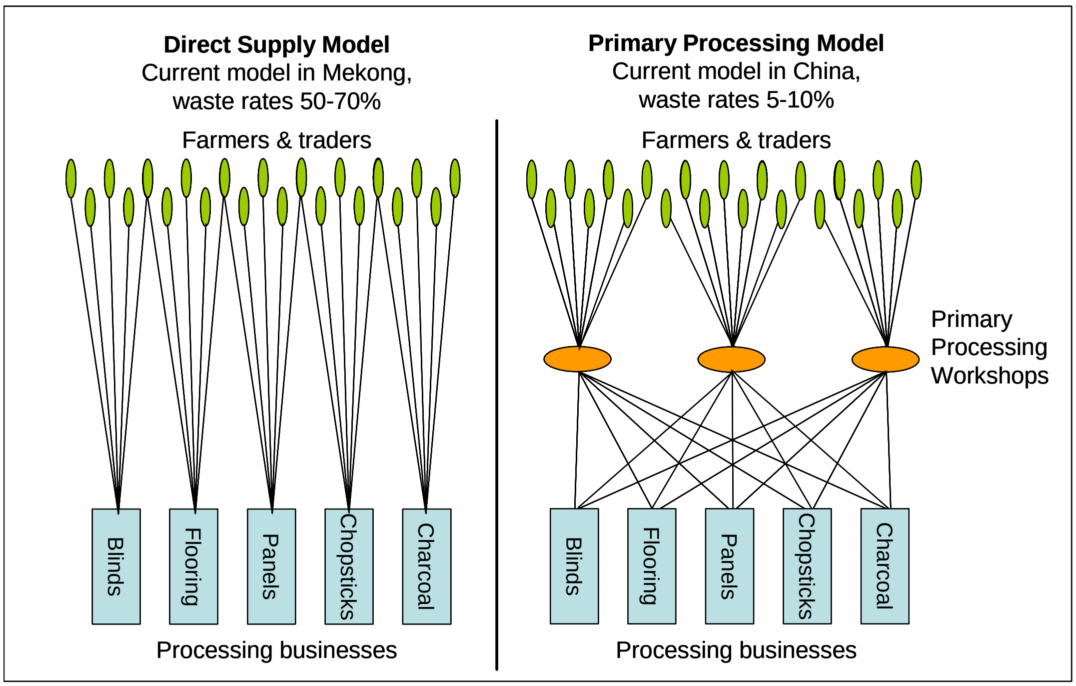
4.8 Improving the way of doing business

There will be many small and larger improvements to the way businesses operate at both an individual level and as a whole within the supply chains in the sector.

Primary processing workshops are one example of a simple, low-cost innovation in the supply chain that has led to high production efficiencies and greater competitiveness in China today. Under this innovative supply chain structure, bamboo is sold first to Primary Processing Workshops who divide the culms and do initial processing before selling the part processed pieces to secondary processors.

The result is a sector that is both more competitive in the market AND delivers far greater benefits to farmers. This is possible because the dramatically higher material utilization rates more than offsets the higher prices paid to farmers for their bamboo (see below).

Figure 5: Differences in supply chain structure



4.9 Gender

Women can be expected to take 50%-60% of jobs created based on current employment patterns in the sector. Figure 4 provides further details by sub-sector, highlighting the greater role of men in farming. Gender differences in roles are not expected to be a constraint to growth or poverty impact.

4.10 Partners

MBC is a collaborative initiative that will work with a multitude of partners from the private sector, development agencies and other organisations. Each supply chain pilot will work in close cooperation with businesses along the supply chain, from larger processors to traders and village workshops. These relationships will be established and managed at the individual project level by the implementing partner.

MBC will itself be based on the collaboration of several key partners, with details given in Section VI.

4.11 Government participation

Local government at province, district and commune/village levels will be key partners in identifying appropriate strategies for developing the local sector. Together we will:

- assess the potential impact of the sector to the local community and economy
- evaluate the role of the sector's development in local development plans
- identify constraints that must be removed to facilitate growth
- develop appropriate policies and plans for an enabling environment for sector growth

4.12 Targeting Strategies

The strategy for targeting poor smallholders and their communities is based on 3 main elements:

a) target a strategic sector (bamboo) with potential to create demand for assets of the poor
b) stimulating growing demand and competition among buyer for smallholders bamboo to drive farm gate price increases
c) ensure the necessary pre-condition are in place such as land tenure/usage rights

4.13 Capital Investments

No capital investments are currently envisaged.

4.14 Smallholder Incomes and Risks

Increased bamboo production will diversify smallholder incomes and reduce risks by:

- reducing price/demand volatility by diversifying end markets (e.g. chopsticks vs. flooring)
- providing sustainable yields on sloping/marginal land (contrast to upland rice, cassava etc.)
- complementing existing livelihood activities as a low labour activity (45 days per ha. p.a.)

Income growth for smallholder will be driven by increasing bamboo prices (currently +20% p.a. in leading bamboo areas in the region) and to a lesser extent by increasing harvests.

The costs of establishing bamboo areas are approximately USD 55 per ha. for seedlings and 45 days labour for planting and preparation.

There is little or no opportunity cost where bamboo is planted on degraded soils despite a transition period of 3-5 years before income begins. Here, cash crops have become financially unattractive due to low yields then . Only where bamboo is being planted to replace existing productive cash crops will there be opportunity costs from the loss of income during this period.

Market based strategies can reduce risks and income disruption by:

- promotion of investment in a mix of processing businesses serving diversified markets
- production of inter-crops (e.g. soy, peanut, kudzu, grazing) during transition
- phased expansion of bamboo production areas over time as part of diversified livelihoods

4.15 Environmental Impacts

4.15.1 Cultivation

Bamboo is widely regarded as an attractive crop from an environmental perspective. The main environmental benefits of bamboo are that it:

- is a sustainable cropping system for sloping lands, reducing soil erosion, and delivering sustainable yields over the longer term in contrast to many current cultivations practices for annual crops on sloping land that are 'profoundly unsustainable'[10].
- is a suitable crop as part of the recovery of degraded lands
- reduces rain run-off and keeps up to twice as much water in the watershed and reduces the risk of flash floods in down stream areas. (Environmental Bamboo Foundation)
- sequester up to 12 tonnes of CO_2 per ha. due to rapid growth rate and selective harvesting
- uses comparatively low levels of fertiliser and pesticides, so reduce pollution compared to many other annual crops under extensive systems of production

Compared to natural forests, the main risk from bamboo is mono-culture development if large areas of land are converted to single species bamboo plantations. This can reduce biodiversity compared to mixed forest cover. Approaches for reducing the impact are to retain areas of mixed forest within bamboo producing areas, but bamboo is unlikely to replace mixed forest in most cases in the region.

One of the pilots will explicitly examine the environment impact of the bamboo sector on biodiversity and the local environment. This pilot will be delivered by an MBC Associate Partner (Winrock International) aligned to the Asia Region Biodiversity Conservation Programme and lessons from it will inform environmental considerations in the wider MBC initiative.

4.15.2 Processing

In a competitive, diversified sector the environmental impact from most processing is modest as the vast majority of processing waste from one business is used as an input in another. The greatest risk in this regard is from the development of isolated processing industries specialising in a single product with few options to sell their waste to other users. For the processing chemical, attention will need to be given to the adoption of good practices for the safe disposal of processing chemicals (e.g. borax).

The main industries of concern are paper/pulp and fibreboard production, due to the wastewater from the production process. However, due to both low level of poverty impact and environmental concerns these will not be priority industries for support, unless there is clear evidence that environment issues can be resolved and it is the most appropriate means of delivering poverty impact in the area.

[10] Bui Dung The (2001) *The Economics of Soil Erosion and the Choice of Land Use Systems by Upland Farmers in Central Vietnam.* Faculty of Economics, Hue University, Vietnam.

4.16 Potential Risks

Risk	Description	Mitigation
Political	Failure to ensure consistent, sustained government commitment at local and national for the development of the sector	Working directly with provincial as well as national authorities. Engagement with several provincial authorities will reduce the concentration risk inherent in working with one single government partner in each country. Priority will be given to provinces that demonstrate strong commitment and evidence of a sound enabling environment. Early engagement of authorities in the planning and design of the programme has been an explicit strategy since the start of the Phase 1 feasibility study. This will continue to be a focus for all stages. Alignment with Government's development policies minimises the risk of obstruction to bamboo-related initiatives.
Market	Significant downturn in demand from a key export market (trade problems, high fuel costs, slowing economy, currency shifts etc.)	Diversify export markets to include US, Asia, EU, ASEAN and develop domestic market. Diversify products to target end markets in different sectors.
Supply Side	Raw material production growth fails to keep up with demand	Early evaluation of best practice for achieving intensification/expansion of production by smallholders followed by application of best practices simultaneously in multiple locations. Development of businesses/markets for natural bamboo species.
	Gregarious flowering of large areas of bamboo in the region	Integrate bamboo production into balanced livelihood systems.
Operational (MBC internal)	Failure to respond to changes in conditions in the sector and markets	Design responsive management structure. Delegate decision making to closest practical level to supply chain pilots.
	Failure to ensure sustained commitment from the MBC partners	Establishment of partnerships with a small number of strategic partners that share a common vision and commitment. Formalization of partnerships and management structures through the establishment of MOUs and coordinated oversight within MBC. Prioritization of 'quick win' activities to demonstrate early successes, build momentum and reinforce commitment in early stages.

5 Monitoring and Evaluation

5.1 Monitoring and Evaluation Systems

MBC will use a business discipline of information management. As a market driven initiative MBC operations will be based on timely, mission critical management information at several levels to evaluate and respond to developments in the market, project impacts and activities. Monitoring and evaluation will be approached in a way similar to the requirements for management and strategic information of a business with multiple operations in different locations and markets.

MBC Core will have a full time dedicated senior staff member leading the M&E activities. These staff will lead the detailed design and delivery of M&E for MBC Core as well as supporting the design and implementation of M&E systems within associate projects. This information-centric function will underpin the development of a regional community of practice in the sector.

The main levels, key purpose and approaches for monitoring will be:

Level	Purpose	Where/ how
MBC level	Internal learning, guiding strategy and activities plus wider dissemination	MBC Core. Aggregation and synthesis of data from all areas of MBC
Sectoral level (external)	What is the market doing in real time and how this will affect projects and businesses?	MBC Core. Synthesis of local sector data and periodic benchmarking versus key competitor industries.
Supply chain level (external)	What is happening in the local market and supply chain and how will this affect businesses, smallholders, the environment and the project?	Relationships & Monitoring within projects but to include whole local supply chain not just areas targeted by the projects.
Project level (internal)	Which MBC partners are coping, need additional support or resources? What is having an impact and what isn't? Are there specific challenges which need to be addressed? (e.g. government partners)	Monitoring within projects, internal project process M&E alongside impact monitoring using common set of key indicators and methods of collection for consistency.
Processing Business level (external)	There will be a finite number of larger businesses in the region which are critical to the sector growth. Their growth, and dealing with threats day to day will be monitored, because problems at this level will have a big potential to spread and have large negative impacts in short space of time.	Relationships & Monitoring by Core
Farmers & Pre-processors (external)	What are the incomes and impacts from the sector? Who and how many people of involved? What challenges are they facing?	Monitoring within projects, but using common set of key indicators and methods of collection for consistency.

The following indicators will form the basis for a common set of impact indicators to be collected and monitored by all pilots and projects:

1. Overall financial impact: the total value of the output of the sector.
2. Pro-poor financial impact: the amount of income captured by the poor through the sales of bamboo or waged labour
3. Value of bamboo harvested and sold by smallholders, covering both volumes and price
4. Employment creation: the total number of Full Time Equivalent (FTE) jobs, both on and off farm
5. Total direct beneficiaries: the total number of workers and farmers gaining direct benefit.
6. Gender based distribution of benefits (this will be further developed in collaboration with the World Bank's Gender & Development Group);
7. Geographical distribution of benefits
8. Rate of private sector investment in processing and marketing activities, either into new businesses or expansion of existing businesses
9. Environmental impact (specific indicator will be developed based on initial experiences from the Winrock International pilot focusing on this issue.)

Baseline data has been compiled for the above in a number of locations. More comprehensive baseline data will be gathered for each of the key bamboo producing provinces/regions before interventions begin. Data collection and surveying of sector participants will then be performed at national and local levels at regular intervals. This will enable on-going monitoring of the success of the overall programme and monitor variations of the approach at a provincial or sub-sector level.

5.2 Dissemination

The dissemination strategy will be based on targeted co-ordinated dissemination on impact e.g. focusing on key decision makers, replicating approach into other priority sectors/portfolios. Dissemination methods has so far included study reports, policy briefings, brochures/pamphlets, conference presentations, focus group meetings, dissemination workshops, 1 to 1 meetings with key audiences, networked dissemination of relevant aspects. Such activities will to continue. Dissemination will draw on evidence from both successes and failures as both provide important lessons for those seeking to replicate the approaches in other locations or sectors.

6 Organizational Capacity and Management Plan

The MBC will be jointly led by Oxfam Hong Kong (OHK) and IFC Mekong Private Sector Development Facility (IFC MPDF). The capacity and experiences of these organisations are described below.

6.1 Organisational Capacity

6.1.1 Oxfam Hong Kong

Funding & Mission

Oxfam Hong Kong is one of the 15 members of the Oxfam International family of agencies. Operating since 1976, the agency has a professional staff of 177 people, with the organisation's head office based in Hong Kong and implementing programmes in 37 countries. The agency 's mission is to reduce poverty and represents a voice of people in Hong Kong where its support base lies. Oxfam Hong Kong has been in Vietnam since 1988.

Operations

In 2005/06, Oxfam Hong Kong supported a total of 1,007 granted projects in 37 countries/ regions of the world. Of these, 296 were newly implemented and approved during the year, and 711 continued on from previous years. In Vietnam it managed 14 projects in 2005/06 with a total operating budget of around US$2million.

In 2005/ 06, HK$141,509,000 (US$18 million) or 90% of Oxfam Hong Kong's funding came from the Hong Kong public, through regular donations, fund raising events and Oxfam stores. In 2005/06 HK$9,518,000 (US$1.2 million) or 6%, came from other Oxfam International members.

Experience

Oxfam Hong Kong has considerable country and regional experience in crop development and agricultural capacity building through its sustainable livelihoods work. Half of Oxfam Hong Kong's annual budget, HK$80 million (US$10 million) was earmarked for 777 projects to improve livelihoods and the development of other basic conditions for a sustainable community. This support includes considerable support in rural production diversification to raise poor and rural farmer's incomes and OHK and has worked closely with over 200 local organisations and NGOs across the world.

6.1.2 IFC-MPDF

Funding & Mission

IFC-MPDF is a multi-donor funded initiative set up by the International Finance Corporation in 1997 in Vietnam, Cambodia, and Lao PDR, to reduce poverty through sustainable private sector development.

IFC-MPDF's donors are the Asian Development Bank, Australia, Canada, Finland, IFC, Ireland, Japan, New Zealand, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom. Funding is on 5 year cycles, MPDF I (USD 26m) 1998-2002, MPDF II (USD 33m), 2003-2007, MPDF III (under development USD 48m) 2008-2012.

Operations

MPDF works through six interrelated programs that seek to improve the business environment; develop the financial sector; improve managerial capacity; and increase sustainable business practices in three sectors that are central to economic growth and poverty reduction – tourism, agribusiness, and garments.

With offices in Hanoi, Ho Chi Minh City, Phnom Penh and Vientiane, staffing levels are consistently in the range of 80 – 90 people, but vary due to short term staff.

Experience

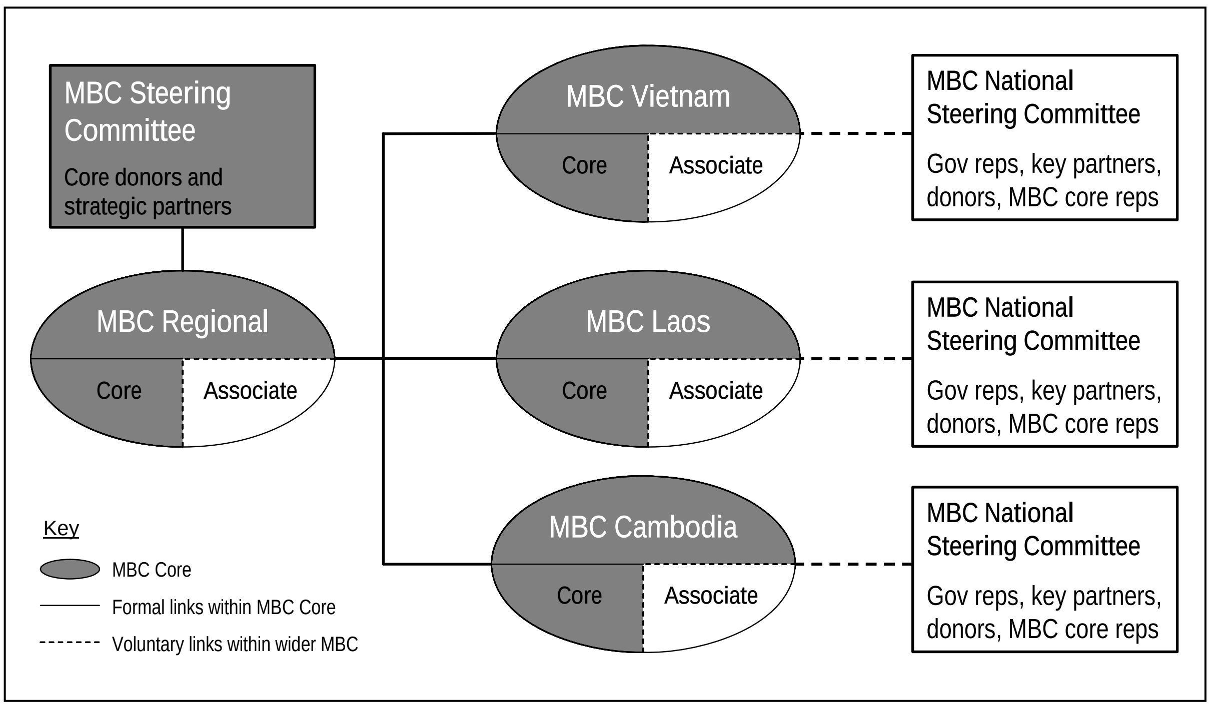
MPDF has been working in the region since 1998, with good links to key government and numerous publications. MPDF has used the supply chain approach in a number of programs since its launch.

6.2 Management Structure & Capacity of Team

6.2.1 Management Structure

The MBC will be split between ***Core*** and ***Associate*** activities. The MBC Core will directly manage critical project activities, and support and coordinate the work of the associate agencies in the three countries. MBC Core will be a collaboration of government, donors, technical agencies and others with a dedicated project team responsible for the management of Core activities. Both the overall MBC and each country programme will have its own steering committee with representatives from all major partners. The roles and responsibilities of each of the partners (Core and Associate) along with the governance framework for MBC will be covered by Memoranda of Understanding (MoUs).

Figure 6: MBC Management Structure



6.2.2 Core Partners

In addition to OHK and MPDF the following organisations are expect to be core partners from the outset of the project.

Groupe de Recherche et d'Echanges Technologiques (GRET) are a French based NGO with extensive experience of smallholder development in the Mekong region. They were the lead implementing agency for the initial pilot and will lead agency for the Farmers and Resource Development activities.

International Network for Bamboo and Rattan (INBAR) is the lead international organization dedicated to developing the bamboo and rattan sectors bamboo and rattan. INBAR based in Beijing connects a global network of partners and has been actively involved in the Mekong project to date.

6.2.3 Associates

Associate numbers continue to grow from those who are already engaged with activities.

- Winrock International (Vietnam)
- SNV (Laos, Vietnam, Cambodia)
- GTZ (Laos, Cambodia)
- Oxfam America (Laos)
- World Bank (Gender Programme)
- Oxfam GB (Vietnam, Cambodia)
- Madox Jolie Pitt Project (Cambodia)
- Enterprise Development Consultants (Laos)
- CIAT Small-Scale Agro-enterprise Development in the Uplands of Laos and Vietnam Project (SADU)

Discussion are ongoing with more than 10 additional local and international organisations about potential collaboration around the MBC initiative.

6.2.4 Government

Activities are planned in up to 16 provinces in the region, and local government partners are relevant in each case from a range of departments and ministries. National level collaboration is currently ongoing with:

- Ministry of Agric & Rural Dev’t - Inst of Policy and Strategy for Agric and Rural Dev‘t (Vietnam)
- Forest Administration - Community Forestry Unit (Cambodia)
- Ministry of Agriculture and Forestry - National Agriculture and Forestry Research Institute (Laos)

Additional government relationships will be established as necessary as the project develops.

6.2.5 Capacity and Structure of the Team

Key international posts within MBC are:

Person	MBC Role 2007+
MBC Co-Directors	(2 x 0.2 FTE) Provide strategic direction and oversight of programme. Manage strategic relationships with key partners. Lead high level dissemination.
MBC Programme Manager	(1 FTE) Responsible for operational management of all MBC activities. Sets priorities and resource allocation between main programme areas. Day to day management of key relationships.
MBC Vietnam Coordinator	(1 FTE): Co-ordinates the activities of MBC partners in Vietnam. Manages the relationships with partners in Vietnam. Co-ordinates support from MBC core to associate partners.

Person	MBC Role 2007+
MBC Laos & Cambodia Coordinator	(1 FTE): Co-ordinates the activities of MBC partners in Laos and Cambodia. Manages the day to day relationships with partners in Laos and Cambodia. Co-ordinates support from MBC core to associates
Business and Supply Chains Lead	(1 FTE): Sets priorities for activities and approaches on business and market development. Supports MBC partners in design and delivery of these activities.
Farmers and Resources Leader	(1 FTE) Sets priorities for activities and approaches on farmer and resource development. Supports MBC partners in design and delivery of these activities
Project Management Officer	(1 FTE) Manages coordination activities and relationships within the wider consortium and supports Country Managers in this activity.
Impact Expert	(1 FTE): Sets approaches and priorities for impact monitoring and evaluation. Supports MBC partners in design and delivery of these activities within each project. Manages MBC wide Management Information systems.
Knowledge Base and Comms Manager	(1 FTE) Co-ordinates the collection, synthesis and dissemination of information, lessons and best practices both within MBC and the wider international sector.
Operations Manager	(0.25 FTE) Part-time role to ensure appropriate management of contracts, reporting and funding with donors and 3rd party contractors

Appendix A: Project Objectives

<table>
<tr><td colspan="1">Vision of Success:</td><td colspan="2">To reduce poverty in rural areas of Vietnam, Laos and Cambodia by linking the poor to the growing global bamboo industry via new pro-poor market approaches. This will result in 600,000 new jobs & USD 1 billion p.a of revenue in poor communities.</td></tr>
<tr><td>Project Objective 1:</td><td colspan="2">Businesses and markets development: To establish a diversified, competitive bamboo processing industry utilizing smallholder produced bamboo.</td></tr>
<tr><td>Activities</td><td>Outputs</td><td>Outcomes (Short- and Long-Term)</td></tr>
<tr><td>Three sub-sectors will be supported:
• industrial processing
• handicrafts
• bamboo shoots

Focussing on priority locations, market segments or supply chain activities, main activities and are expected to cover:
Investment
1. Targeted investment promotion
2. Improving Access to Finance (A2F) for enterprises along the supply chain, from smallholders to small and medium enterprises by:
• leveraging existing programme dealing with SME financing (e.g. MPDF Financial Sector Programme)
• demonstrating the potential for mainstream financing in the sector
• promoting financing of the sector by mainstream financial institutions</td><td>Within 18 months
Investment
Investment promotion
• 3 investment promotion events, such as: Investor Visits, Trade Fair Exhibits, Website launch, mailings.
A2F
• Quantitative data gathered on investment performance and requirements of enterprises in supply chain pilots and wider sector
• Assessment completed of potential approaches for increased mainstream financing of sector.
• Plan developed to ensure adequate A2F in the sector, possibly including initial pilot launched on mainstream financing (if not covered by other Financial sector programmes)
• Further A2F activities based on proposed plan
Competitiveness
• At least 6 supply chain pilots launched
• Supply chain pilots launched in all 3 sub-sectors</td><td>By 2017
• Industry production value increase to approx. USD1bn p.a. from approx. USD250m today.
• Industry consumption of bamboo increase by 100% over today's level (note lower % growth than industry output due to increases in efficiency and value added)
• Employment levels (including on-farm labour) increase in each sub-sector by approx.:
  o 200,000 in industrial processing
  o 400,000 in handicrafts
  o 20,000 in bamboo shoots
• Average annual investment levels in sector increased by 100% within 6 years
• 60% of the output value of the sector captured by smallholders and workers in rural areas.
For the Industrial Processing sub-sector:
• Value added material utilisation rates for raw culms exceed 90% in target Provinces. (i.e. waste rates <10%)
• Average production output value per tonne of raw material consumed increases by 100% over current levels.
• Strengthened business networks and/or</td></tr>
</table>

Competitiveness 3. Supply chain pilots to demonstrate commercially viable supply chain improvements in multiple locations 4. Technology and management transfer and dissemination 5. Business management capacity and skill strengthening 6. Branding, quality and standards improvements linked to specific market opportunities Market infrastructure 7. Linking buyers and suppliers through: • Targeted export promotion and buyer linkage development • Business directory / database development • Strengthening of domestic marketplaces (e.g. electronic, local wholesales/farmer markets) 8. Improving access to timely and relevant market and technical information 9. Supporting the development of effective business networks in the sector (and associations, where appropriate). 10. Supporting the development of input suppliers and service providers to meet demand from growing sector (e.g. equipment suppliers)	• Supply chain pilots launched in all 3 countries Market Infrastructure • 3 export/trade promotion events (e.g. trade fair exhibits, mailing campaigns, brand promotion, key buyer meeting programme) • Publication of directory and database of Mekong bamboo businesses • Piloting of improved market information systems for business, traders and smallholders in at least 3 supply chains Market Research & Development • Detailed market analysis of initial priority markets, such as: o Thai market for baskets, shoots, charcoal and other bamboo products o East Asian bamboo shoots market o Vietnamese domestic bamboo shoots market o Bamboo charcoal export market o Bamboo paper and pulp industry • Publication of market analysis reports aimed at businesses and investors • Development and testing of competitiveness benchmarking framework • Completion of competitiveness benchmarking for at least 3 priority markets • Publication of competitiveness reports aimed at businesses, investors and policy makers • Preparation of market development strategies for at least 3 priority markets	association at local and wider level Scheduling of outcomes During the first 3 years of the project there is therefore expected to be a 12% increase in indicators outlined above based on the following growth assumption for the industry (based on total industry output value): 2007 – 2009 = 4 % p.a. 2010 – 2012 = 10% p.a. 2013 – 2017 = 28% p.a.

Market Research & Development 11. Detailed analysis of potential markets, including quantitative assessments of demand, price, quality requirements, major customer segments and channels to market. 12. Competitor analysis and benchmarking with other producer regions 13. Design of market development strategies for priority markets 14. Product standard development or certification where needed for market entry (e.g. bamboo lumber for structural applications in the construction industry)		

Project Objective 2:	**Farmers and resource development:** To expand and intensify sustainable bamboo production by smallholders to meet demand from the expanding processing industries.	
Activities	**Outputs**	**Outcomes (Short- and Long-Term)**

15. Widely demonstrate good practice in sustainable smallholder production/management and engagement in commercial supply chains.
16. Testing and evaluation of different extension delivery systems to achieve expansion/intensification of production/harvesting
17. Investigation of environmental impacts of bamboo cultivation, harvesting and rural processing
18. Promotion of local input providers to meet demand (e.g. nurseries, agro-chemical suppliers)
19. Development of virtual 'centre of excellence' and resource network on bamboo production and smallholder development to act as central resource and knowledge base for wider MBC and other interested parties.
	Within 18 months
	• At least 4 core or associated Supply Chain pilots that demonstrate 'good practice' for expansion and/or intensification of production
	• Documenting, adapting and testing of "Promising" and "best" practices on key issues of expansion and intensification of production identified
	• Publication of "best practices" in a range of formats suited to different target audiences – smallholders, extensionists, policy makers (e.g. local language, flyers, case studies, manuals/reports, multi-media)
	• Piloting and evaluation of a range of extension delivery systems for bamboo smallholders, including full cost recovery models.
	1) Documented and published qualitative and quantitative information on environmental impacts of bamboo cultivation, harvesting and rural processing.
	Beyond 18 months:
	2) Role-out to addition locations and supply chains
	3) Reprioritisation to focus on what is working and ending activities with limited impact.
	4) Continued benchmarking outside the project
		In target bamboo producing provinces:
		• On-farm net income for cultivated bamboo increased from equivalent of c. $250/ha. today [8 T/ha. @ $30/T] to:
		  • by 2017 ~$1000/ha. [10 T/ha. @ $100/T]
		  • by 2013 ~$650/ha. [9 T/ha. @ $70/T]
		  • by 2010 ~$400/ha. [8 T/ha. @ $50/T]
		• Tonnes of bamboo sustainably harvested from all sources increases by 100% by 2017 and by 10% by 2010.

<table>
<tr><td>Project Objective 3:</td><td colspan="2">Sector enabling environment: To establish an enabling policy and operating environment for enterprises and farmers in the sector.</td></tr>
<tr><td>Activities</td><td>Outputs</td><td>Outcomes (Short- and Long-Term)</td></tr>
<tr><td>20. Improving the enabling environment for bamboo farmers/harvesters
21. Improving the policy and operating context for businesses in the sector
22. Promoting awareness of sector potential among key decision makers
a. Study tours for key personnel to leading bamboo areas, both within the regional and Internationally.
b. Evidence based, targeted policy briefings
c. Customized pilots and demonstration for local context
23. Research on key issue affecting the sector (e.g. impact of specific policy measures,
24. Evidence based advocacy on key policy issues affecting the sector e.g. State Forest Enterprise reform</td><td>• In 50% of target Provinces/Districts within 3 years of activities beginning (80% within 6 years):
o Provinces/district prepare bamboo development plans and policies
o Inclusion of bamboo as ‘priority’ or ‘favoured sector’ in Provincial/District plans, with associated support to investment, businesses and smallholders where available
o Improved local policy and practice around critical smallholder issues such as: tenure, land use or access rights [need indicators]
• Extension delivery system improvements trialled, including extension materials, techniques and/or financing structures in at least 3 Province within 3 years.
• At least 20 key decision makers and personnel, drawn from all 3 countries, visit leading regional and international bamboo areas on study tours within first 18 months.
• Policy briefing and localised impact assessments prepared with local authorities in at least 6 Provinces within 3 years.</td><td>Increased capacity and commitment of government to support the development of the sector at local and national level.</td></tr>
</table>

<table>
<tr><th colspan="1">Project Objective 4:</th><th colspan="2">MBC Co-ordination: To establish and run an effective consortium, from government, non-governmental and private sectors, to drive the widespread development of the sector in the Mekong.</th></tr>
<tr><th>Activities</th><th>Outputs</th><th>Outcomes (Short- and Long-Term)</th></tr>
<tr>
<td>Establishing MBC
{These activities are structured differently to narrative owing to structure of logframe}
25. Set-up core team, including any new recruitments
26. Prepared detailed organizational agreements between key organizations and donors
27. Establish governance and management structures for MBC
28. Design and implement internal systems and co-ordination mechanism for MBC
29. Agree collaboration arrangements with MBC partners to ensure maximum value added and complementarity of activities
30. Support finance raising efforts of MBC partners as necessary
Running MBC
31. Regular collection and sharing of information on activities, ideas and insights across MBC
32. Periodic progress reviews, consultations and steering group discussions
33. Impact monitoring and performance review of different activities
34. Developing networks beyond the region to access knowledge, find opportunities and disseminate lessons from MBC.
Impact & Performance Monitoring
35. Design of impact and performance monitoring systems</td>
<td>External
• substantive collaborations within 18 months with:
o 4 implementing partners
o government in 4 provinces and national ministries
o 2 core donors
• core and associate interventions in
o 6 locations/thematic areas within 2 years
o 10 locations/thematic areas within 4 years
o all 3 countries within 18 months
Internal
Within 12 months:
• MBC formal structure in place
• MBC core team and systems in place
• Secure 100% financing in place for first 3 years
• MBC co-ordination mechanisms active and ongoing (e.g. steering meetings, info sharing, networking)
Impact & Performance Monitoring
• Definition of key indicators and methods of collection
• Design of systems and processes for ongoing collection and review of key indicators and links to management of project activities
• Collection of baseline data for all supply chain pilots</td>
<td>• Active, multi-member consortium, including donors, implementing partners, government and co-ordination partners
• Alignment of activities/actions to national approaches/strategies
• Maximised used of total investment in the sector to achieve target MDG of poverty.</td>
</tr>
</table>

36. Collection of baseline data at regional, national and local level linked to supply chain pilots. 37. Periodic collection of performance & impact data 38. Review and evaluation of impact and performance leading to refinements of ongoing activities		