



THE SECOND 5-YEAR BAMBOO DEVELOPMENT STRATEGY (2016-2020) HOUAPHANH PROVINCE



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PUBLISHED BY

Bamboo development project/ GRET

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ACRONYMS

AFD	French Development Agency
EU	European Union
PAFO	Provincial Agriculture and Forestry Office
DAFO	District Agriculture and Forestry Office
PONRE	Provincial Office of Natural Resources and Environment
DONRE	District Office of Natural Resources and Environment
DIC	Department of Industry and Commerce
DOIC	District Office of Industry and Commerce
DPI	Department of Planning and Investment
FAO	Food and Agriculture Organization of the United Nations
GRET	Professionals for Fair Development
Ha	Hectare
HP	Houaphanh
INBAR	International Network for Bamboo and Rattan
Km	Kilometer
LECS	Lao Expenditure and Consumption Survey
LWU	Lao Women's Union
SNV	Netherlands Development Organization
USD	United States Dollar
FMP	Forest Management Plan
CM	Combined Method
VBPT	Village Bamboo Plantation Technician
VV	Village Volunteers
VFMT	Village Forest Management Technician
CLRT	Communal Land Registration and Titling
VBC	Village Bamboo Committee
PG	Producer Group
Pu	Processing Units

LETTER OF THE PROVINCIAL GOVERNOR

The first 5-year Bamboo Development Strategy (2010-2015) was achieved by all related Departments and Authorities at the Provincial, District and Village levels, with the support of GRET and SNV and with funding from EU, AFD and the Fondation Ensemble. From 2010 to 2015, implementation of the Strategy has had numerous positive impacts and paved the way for a sustainable development of the bamboo sector.

For the second phase (2016-2020), several Departments and Authorities (i.e. Governor Office, PAFO, DPI, DOIC, LWU, PONRE) have joined the effort to develop more clearly the Strategy and improve its guidance while keeping up with the previous goal: that is, allowing for bamboo to become the “green gold” of Houaphanh Province. On that basis, the second 5-year Bamboo Development Strategy (2016-2020) was formulated by the Provincial Authorities, the Sam Neua, Viengxay & Sobbao District Authorities, with facilitation of the Bamboo Project and support from GRET. Thus, the Strategy constitutes a strong interdepartmental effort to build a common framework and to identify clear directions to develop and maintain a sustainable bamboo industry in Houaphanh Province.

The Governor of Houaphanh Province, on behalf of the people of Houaphanh Province, would like to thank all involved Departments and Authorities at the Provincial, District and Village levels as well as the local communities and the private sector. On this occasion, I would also like to acknowledge the role of GRET as main facilitator, providing financial and technical support to formulate the Strategy. The strategy will constitute a reference for all bamboo stakeholders to develop the sector.

THE PROVINCIAL GOVERNOR

EXECUTIVE SUMMARY

The first 5-year Bamboo Development Strategy (2010-2015) has been implemented by the Authorities of Houaphanh Province and of the three Districts of Sam Neua, Viengxay & Sobbao with the support of the Bamboo Project operated GRET and SNV. The value chain approach adopted during the first phase proved effective for mobilizing stakeholders (villagers, traders, investors, government staffs) around five bamboo-based value chains: handicraft & furniture (Khouane, Hok, Luang bamboo species) and fresh bamboo shoots (Khom species) for the domestic market and dried bamboo shoots (Hok species), paper pulp (Xang species) and slats & sticks (Khouane species) for the Vietnamese market.

Based on the lessons learned from the first phase, a multi level consultation has been organized by the provincial and district authorities in cooperation with the Bamboo Task Force and GRET between May and July 2015. The first phase was estimated to be quite successful, as compared to its original objectives. A second 5-year Bamboo Development Strategy (2016-2020) was then designed, with the following targets :

- 5 000 Households involved in bamboo activities (1800 Households in 2015)
- Expand the allocation natural bamboo forests to villagers, forest management plans and forest monitoring activities in 10-30 new villages or 5 000 ha (26 villages and 3400 ha managed in 2015)
- Generate USD 1,0 million from domestic trade and exports of bamboo products (USD 450 000 generated in 2010-2015)

This will involve the following strategies :

- Approve and implement favorable and supportive policies on bamboo resource allocation and tenure, import and export tax reduction and exemption, investment incentives and improvement of the quota system
- Design and implement new activities to support new potential bamboo value chains (May Dja or other)
- Create a Bamboo Service Center as an independent entity able to provide services to bamboo value chains stakeholders; an entity that will continue supporting the sustainable development of the sector
- Gather the bamboo Producer Groups into a broader organization (association or cooperative)

The overall objective of the second 5-year Bamboo Development Strategy (2016-2020) is to have the bamboo sector providing stable and sustainable incomes and employments while contributing to poverty alleviation and the conservation of the forest and upland environments. It is expected that the improved capacity of the provincial and district authorities and the emergence of local non-governmental actors will create a fertile ground for co-implementation and co-management of the new Bamboo Development Strategy.

Three main results are particularly expected:

1- the securing of land tenure rights on bamboo plantations and the support of market-oriented natural forest management by local authorities;

2- the emergence of bamboo producer groups able to play a primary role in managing forests sustainably, developing bamboo plantations, delivering extension services, and developing local handicraft and pre-processing units to supply different markets;

3- collaborations with national research agencies and an effective coordination between government, producer groups and the private sector to support experimentation and sustainable development of the bamboo sector.

I. OVERVIEW OF HOUAPHANH PROVINCE

1. LOCATION

Houaphanh is situated in the northeastern part of the Lao PDR, around 630 kilometers away from the capital city of Vientiane (Figure 1).

The province covers a total land area of about 17,000 km² and is bordered by Xiengkouang and Luang Prabang provinces in the south and west and shares its north, east and southeast border with the Vietnamese provinces of Son La, Thanh Hóa and Nghệ An.

Following subdivision of the former eastern district of Xamtay into two new districts, Kouane and Xamtay, in 2013 and the subdivision of Viengthong into Hiem and Sone districts in 2014, the province is now composed by 10 districts and 718 administrative villages.

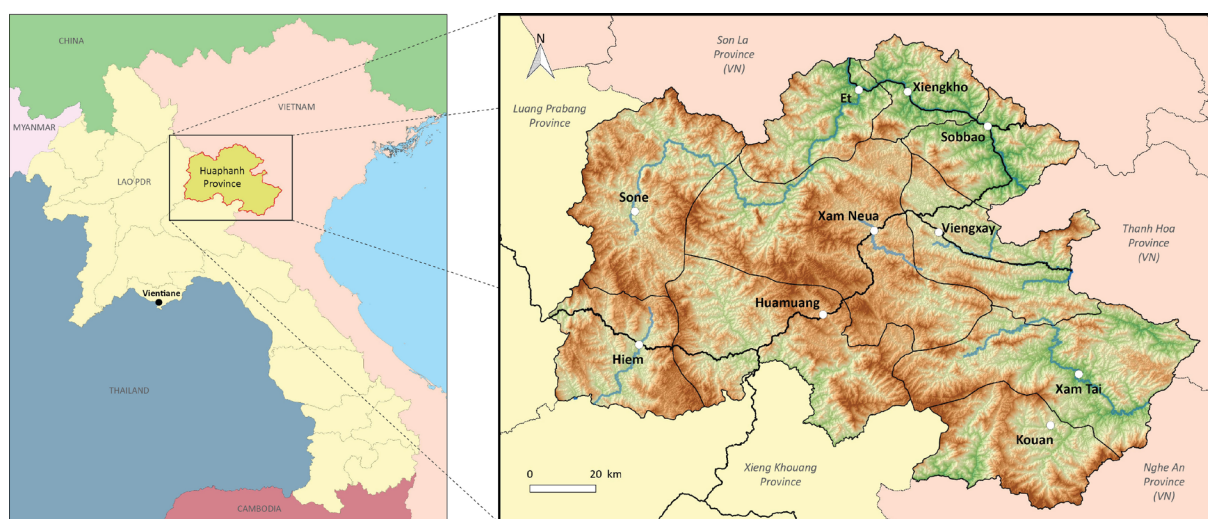


Figure 1. Map of Houaphanh Province

2. DEMOGRAPHY

The total population of the province was 297 179 in 2014, constituting some 48 000 households with an average household size of 6.2 persons (2015).

The average population density is 17.5 persons per km2, with important concentrations of population found along the national roads No. 6 and 6A, especially around the provincial capital of Xam Neua and the district capitals of Viengxay, Xiengkho and Et.

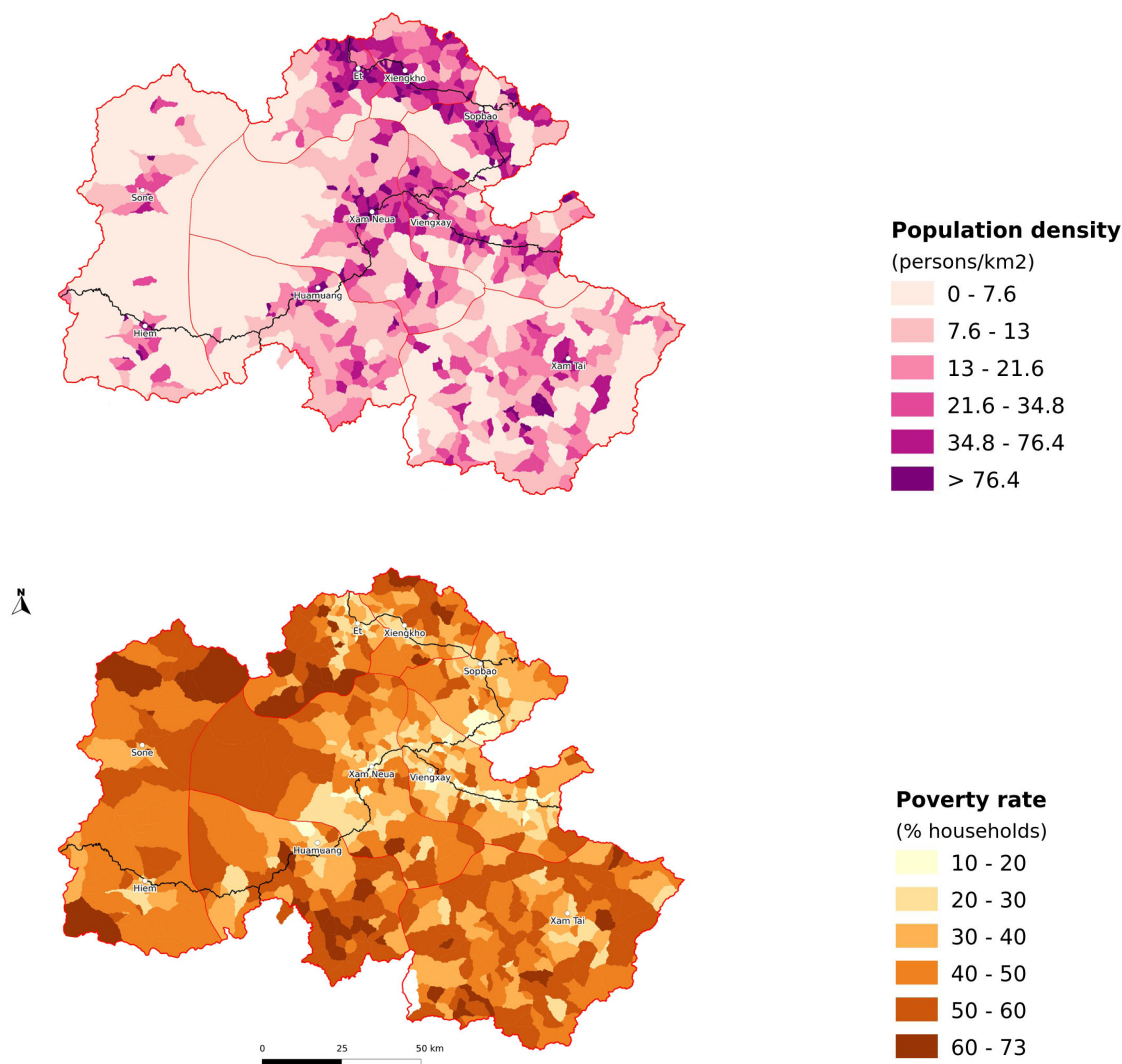


Figure 2. Population density (persons/km2) and incidence of poverty (% of poor households) in 2005

Data source: Lao DECIDE info, Population and Housing Census 2005

3. ECONOMICS

Houaphanh is one of the least developed provinces in the Lao PDR. Although poverty has decreased significantly in the recent years, 39.2% of the population was still living in poverty in 2013 (LECS, 2013), with the most important poverty headcount rates encountered in remote areas north of Sone and Xiengkho districts and south of Et, Huamuang and Xam Tai districts (Figure 2).

The total income of the province in 2005 was 45.51 billion kip while expenditures amounted to 66.53 billion kip. The main industry sectors are Agriculture and Forestry, Services, and Manufacturing (Provincial Tourism Office Houaphanh, 2007).

The Agriculture and Forestry Sector which accounts for 64.13% of the economic activity is mainly focused on growing crops like rice, maize, cassava, ginger, and soya bean and growing livestock. Services, which account for 23.64% of the economic activity, are mainly on tourism which generated 5% of the total provincial income (> 2.5 billion kip). The Manufacturing Sector, which accounts for 12.23% of the economic activity, includes weaving, mining and small-scale manufacturing (furniture, drinking water and bamboo chopsticks).

At the individual and household levels, 77.6% of the population aged 10 years and older is economically active, principally in the farming sector (LECS, 2013). Yet, a large majority of the farming households (77%) are producing primarily for subsistence purposes (Lao Agricultural Census, 2011).

In 2013, the average net agricultural income per household was 14,662,600 kip per year, while the average annual expenditure per household was 20,815,000 kip per year.

4. FOREST COVER, AGRICULTURE AND FOREST PRODUCTS

Natural forests dominate the hilly landscape of Houaphanh Province, although a very substantial area is composed of secondary forest and shrub (Figure 3).

Bamboo is abundant in the districts of Viengxai, Sobbao, XamNeua and Et (Lao National Forest Inventory, 2004). Of the total area devoted to bamboo (526,238 ha), 90% are in upper mixed deciduous forest. Only 17,870 hectares are devoted purely to bamboo.

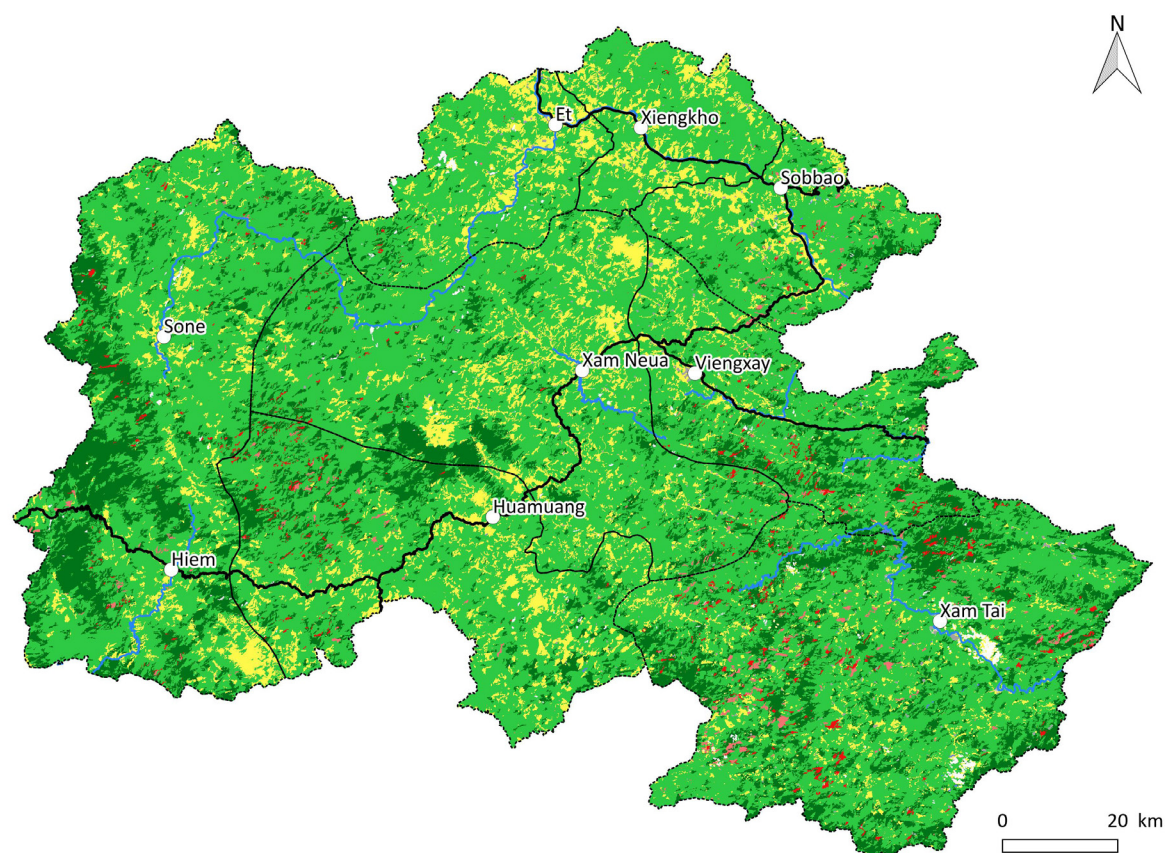
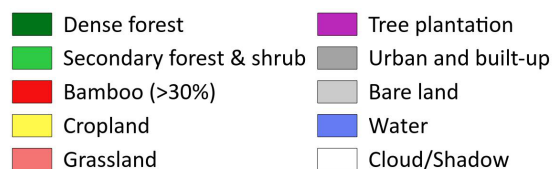


Figure 3. Land use map of Houaphanh Province

Data source: National University of Laos, Faculty of Forestry, 2014



Rotational shifting cultivation remains the dominant agricultural practice in Houaphanh Province and was used by 84% of the farmers in 2013 (LECS, 2013). Forests are generally cut, burned and cultivated after fallow cycles of 3 to 20 years depending on population density and land availability. In 2011, out of a total of 49,000 ha of annual crops in the province, rice, maize and cassava constituted the main crops covering 34,800 ha, 12,400 ha and 1,100 ha respectively.

Houaphanh Province also had the smallest farm sizes of the country with an average agricultural land holding area of 1.3 ha per farming household. Alongside agricultural land, around 6,400 households of Houaphanh Province were owners of individual forest plots on which some 5,700 households were exploiting bamboo (Lao Agricultural Census, 2011). The average bamboo plantation holding size of families in the province is around 250 m² for an average of 18 clumps per household (Boupha and Phimmavong, 2006).

Natural forests constitute also an important reservoir of food and cash incomes (Clendon, 2001). NTFPs are indeed an essential component of local people's diet, accounting for a significant part of the household consumption in rural areas, and the biodiversity and quantity of wild NTFPs provide opportunities for income generation.

In 2013, 41% of the villages in the province reported receiving regular support from agricultural extension workers, 35.3% were targeted by at least one development project, and 34.5% had undergone a land use planning and land allocation program (LECS, 2013).



Figure 4 Bamboo forest in Houaphanh Province (Hok, Kouane, Khome)

II. OVERVIEW OF THE BAMBOO SECTOR AND VALUE CHAINS

1. INTRODUCTION ON BAMBOO

Bamboo, a versatile giant grass, is widely distributed across Asia, the Pacific, the Americas, and Africa. Bamboo forests cover an estimated area of 37 million hectares, equivalent to almost 4% of the world forests (FAO 2010). Besides its spatial extent, bamboo constitutes a very important plant both economically and ecologically. It is one of the world's most versatile building materials, specifically in areas where timber is in short supply. More than 1,000 different products are derived from bamboo (Lewington, 1990).

Across Asia, bamboos are extensively used in everyday life as building materials, food source and as a highly adaptable raw material for a variety of products. The plant plays an important role in the social and economic life of the Laotian people, especially those living in rural areas. Besides being a traditional source of food and medicine, bamboo is used as material in the traditional housing of many ethnic minorities and processed into handicrafts and artifacts throughout the country.

Bamboo has also remarkable ecological qualities (INBAR, 2014). Bamboos have extensive underground rhizome systems that can contribute to stabilize soil and control erosion.

The evergreen nature of bamboo also ensures that soil erosion due to rainwater impact and subsequent water runoff is limited (Figure 4). As a fast growing plant, bamboo can provide rapid vegetation cover to deforested areas. A bamboo forest has carbon sequestration properties and can absorb twice as much metric tons of carbon dioxide per hectare than a regular forest.

It is also able to produce 35 to 46% more beneficial oxygen than most plants. Bamboo has one of the best nitrogen fixation systems for the soil (Xiali and Xiaoping, 2001).

Hence, it constitutes a valuable land-use option to offset greenhouse gas emissions and mitigate climate change.

2. THE BAMBOO INDUSTRY AND TRADE IN THE WORLD

In 2006, the world bamboo market was worth USD 7 billion/year of which China had USD 5.5 billion (Figure 5). The largest markets were handicraft (USD 3 billion), bamboo shoots (USD 1.5 billion) and traditional furniture (USD 1.1 billion). Traditional markets cover handicrafts, blinds, bamboo shoots, chopsticks and traditional bamboo furniture which account for 95% of the market. Emerging bamboo markets are wood substitutes such as flooring, panels and non-traditional furniture.

The global market is expected to grow to USD 15-20 billion/year in 2017. Non-traditional markets (e.g. laminated furniture, flooring) are expected to claim 45% of the total bamboo market. China is one of the most important markets in the region and the world with 3.4 million hectares of bamboo of which 85% is consumed domestically. The Mekong region currently generates USD 261 million/year but the selling and processing of whole bamboo poles is often inefficient and markets are still poorly developed.

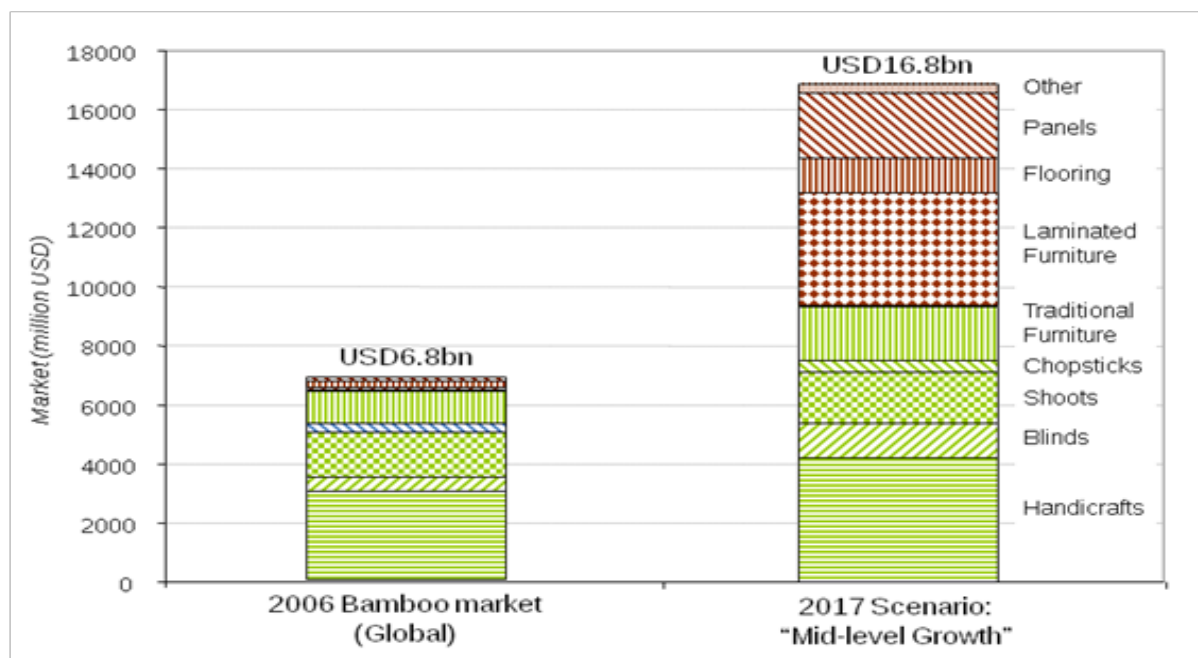


Figure 5 : The world bamboo market in 2006 and expectations for 2017

Source: The Mekong Bamboo Initiative (IFC/OXFAM), based on the UN Comtrade database

The Laotian bamboo industry is clearly underdeveloped and under-organized compared to the situation in neighboring countries like China and Vietnam. However, a number of projects targeted at supporting the development of the bamboo sector have been set up over the past ten years throughout the country (e.g. Houaphanh and Bokeo Provinces, Sanakham and Sangthong districts in Vientiane Province).

The following describes the situation in Houaphanh Province.

3. BAMBOO VALUE CHAINS IN HOUAPHANH PROVINCE

While there is an abundance of natural bamboo resources in Houaphanh Province, the bamboo sector is still in its infancy. Ten years ago, only few and very small-scale bamboo processing businesses were involved in producing simple products with most activities involving bamboo shoot collection, mat making and traditional handicraft making. Over the past five years however, largely under the impulsion of the provincial authorities and international development organizations¹ implementing the Bamboo Sector Development project in Viengxay, Sopbao, and Sam Neua districts, Houaphanh Province has witnessed significant developments in relation to different products of bamboo.

These products, their value chains and the associated recent developments are described below.

3.1. Mai khom shoots

Mai khom (*Indosasa sinica*) shoots are collected directly in the bamboo forests during the dry season (from December to April) and used traditionally for self-consumption by rural populations.

With increased accessibility and market integration and, in some localities, under the impulsion of the provincial bamboo strategy, mai khom shoots are now commonly marketed as fresh products to supply the local and domestic market (Figure 7).

The harvesting season of mai khome generally stops when the shoots are becoming too bitter and the price per kilogram decreases significantly which, in turn, allows for regeneration of the resource.

¹ Gret and SNV, with funding from EU, AFD and Fondation Ensemble

**Bamboo villages supply khom value chains in Samnuea-Viengxay Districts
Houaphanh Province-Lao PDR. 2014**

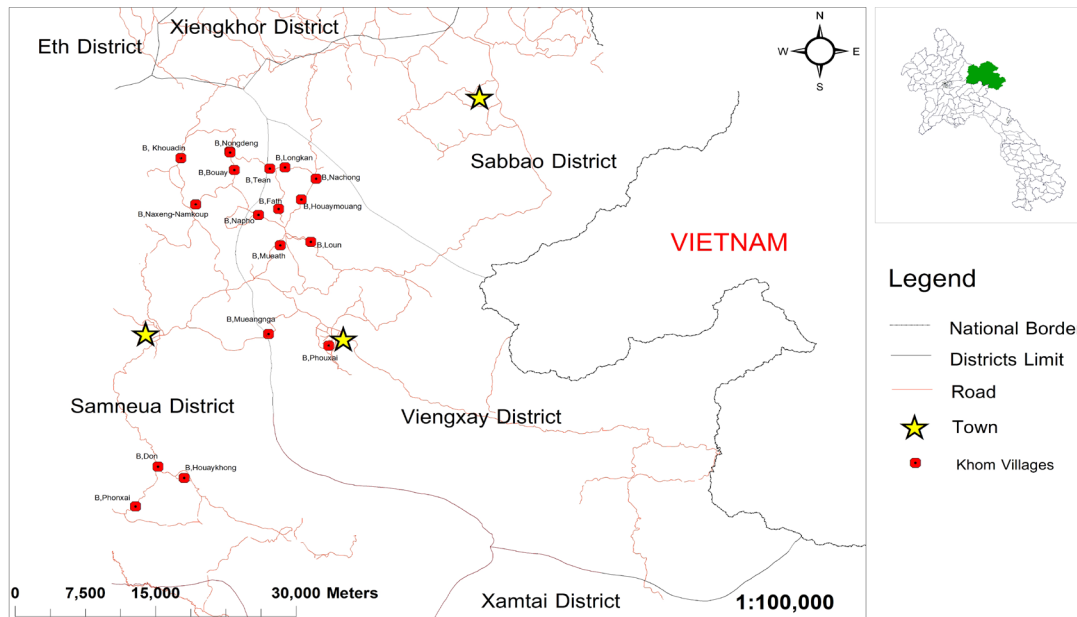


Figure 6. Target villages of the Bamboo Project for Khome bamboo shoot value chain



Figure 7. Mai khom shoots being sold in a local market

Mai khom shoots can be sold locally by the villagers, either in local markets or directly along the road. Depending on market opportunities, the value chain can also involve local collectors and traders who collect, transport and sell the products in other provinces (Figure 8).

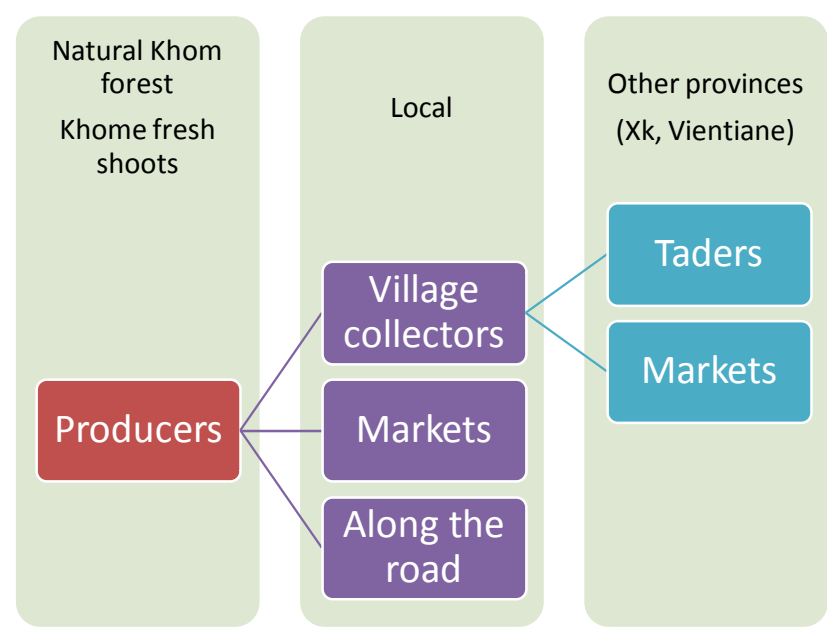


Figure 8. Mai khom shoots value chain(s)

In Samneua and Viengxay districts, the population involved in mai khom forest management and shoots harvesting has increased sharply in recent years – from 8 villages and 386 households in 2012 to 12 villages and 871 households in 2014 (Figure 8).

An increasing number of villages are managing their natural bamboo forests and setting up producers groups. In 2014, 10 villages had a forest management plan and 16 were engaged in forest evaluation and monitoring activities. Mai khome shoots producer groups had also been established in 12 villages. As a result, the local production also increased generating a total income of 787 million kip for all 12 harvesting villages in 2014.

In average, harvesters were able to generate between 0.6 and 1.7 million kip of annual income in the past three years, with important variations between households and from one year to another (mainly due to climatic conditions rainfall/shooting patterns).

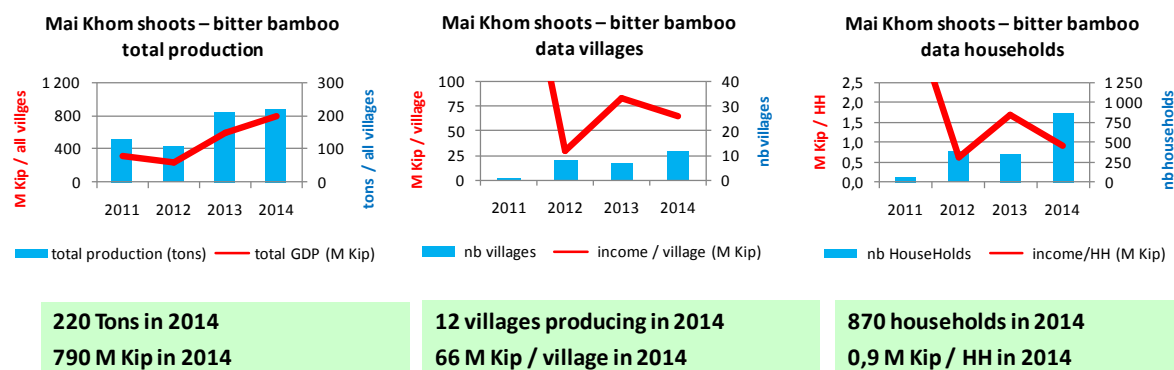


Figure 9. Mai khom - production and incomes generated at the village and household levels (2011-2014)

Today, 1 300 ha of Khome forest is sustainably managed by the villagers of 8 villages. Even if the natural resource is still very abundant, new plantation techniques are being experimented by villagers. Some of the main issues faced by villagers involved in mai khom shoots harvesting include significant inter annual variations in production (influenced by rainfall patterns) and intra seasonal variations in prices (affected by shooting peaks).

3.2. Mai hok dried shoots

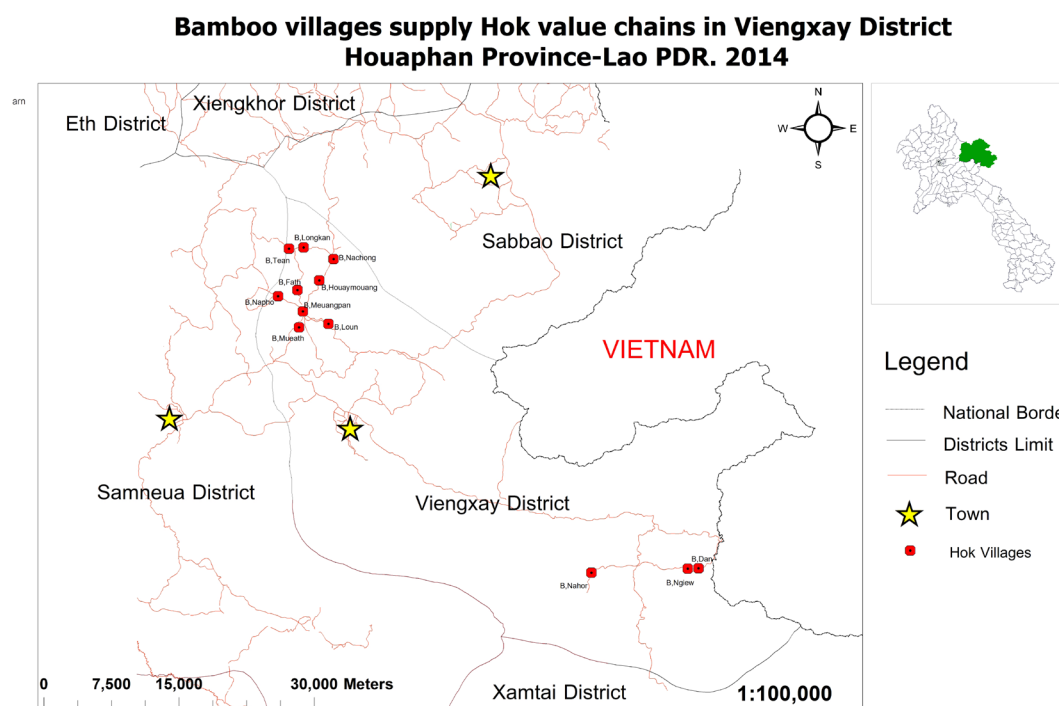


Figure 10. Target villages of the Bamboo Project for Hok bamboo shoot value chain

Mai hok (*Dendrocalamus hamiltonii*) shoots are collected directly from the clumps in bamboo forests at the peak of the rainy season (from July to September). Mai hok shoots are then peeled, boiled, cut in slices, pressed for water extraction, and sun or oven dried (Figure 11).

These practices are not customary and mai hok harvesting and processing was promoted by traders in the early 2000s to supply the Vietnamese market.

In the late 2000s, a provincial ban on mai hok shoots harvesting and trade was established in order to avoid overexploitation of the natural bamboo and firewood resources needed for the drying process. The ban ended in 2012 when four traders were allowed to export a total of 10 tons of dried shoots. The trade of mai hok dried shoots was reactivated



Figure 11. Mai khom shoots: from harvesting to packaging

Mai hok dried shoots are now commonly exported to Vietnam and, to a smaller extent, sold on the domestic market (Figure 12).

The value chain depends on the quality of the processed product. Grade B products (i.e. sun dried regular quality slices) are generally sold by villagers to traders who then export their stock directly to Vietnam.

Grade A1 products (sun dried good quality slices) have a broader range of marketing destinations, with traders being increasingly able to find opportunities on the domestic market.

Grade A2 products (oven dried superior quality slices) can also involve contracting arrangements between mai hok dried shoots producers and agribusiness companies.

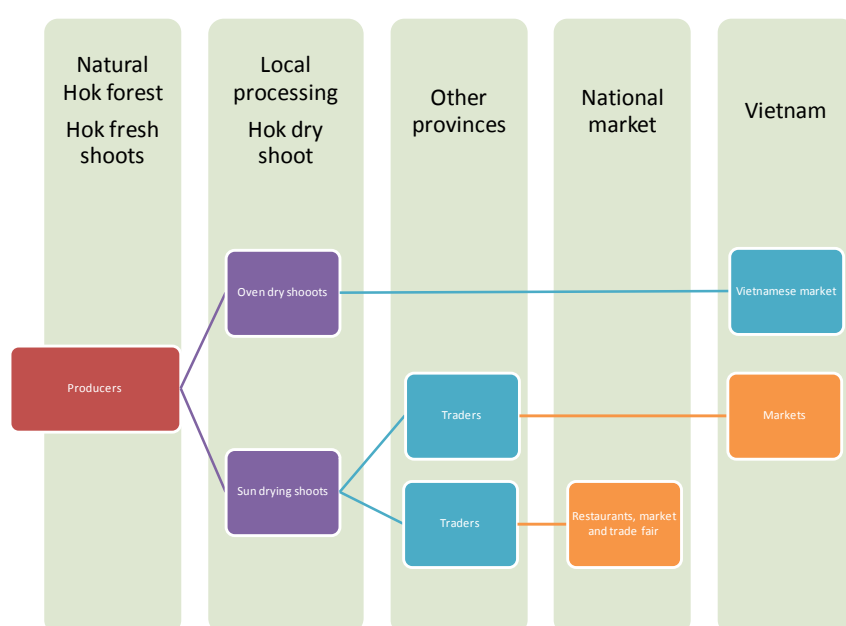


Figure 12. Mai hok dried shoots value chain(s)

Forest and production monitoring and evaluation of 11 villages in Viengxay district shows a general decrease in the total production of mai hok dried shoots between 2012 and 2014 due to the blossoming of one sub-species (Figure 13).

The income generated at the village level also decreased during the same period, though to a lesser extent than the production thanks to improvements in the processing and drying stages leading to higher selling prices.

In 2014, producer groups of 11 villages, involving 530 households, harvested and processed 16 tons of dried shoots and sold them in different value chains for a total value of 351 million kip. In average, producers were able to generate between 0.8 and 1.3 million

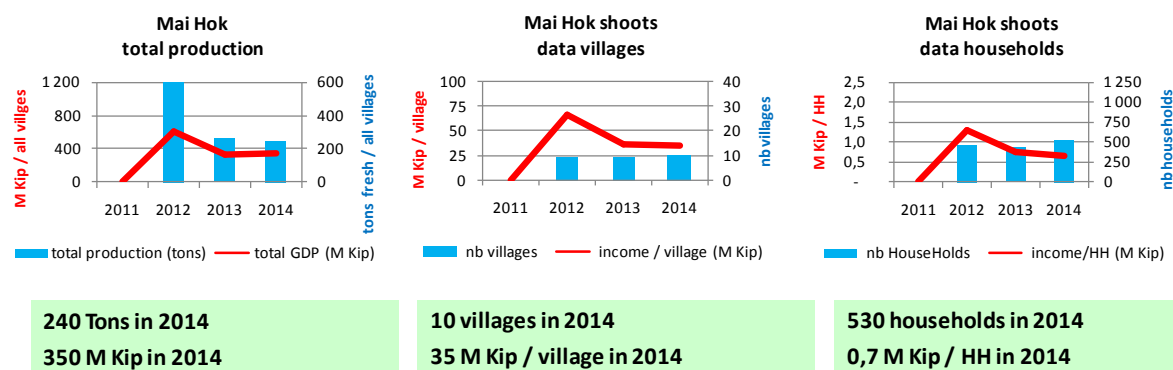


Figure 13. Mai hok - production and incomes generated at the village and household levels (2011-2014)

The producers experimented several business models and gradually improved the quality of the final product (three quality grades and corresponding prices). Four villages established collective processing units in 2014 for producing high quality shoots, oven dried and sold directly to a Vietnamese company. These villages have been selected by the Ministry of Agriculture and Forestry as pilot sites for experimenting Participatory Guarantee Systems (PGS) in 2015.

With an important market demand from Vietnam, mai hok dried shoots production constitutes a valuable option for villagers to generate extra income.

However, the activity is still very new and the value chain may actually be improved by developing processing standards that would allow a better fit of the local production to the expectations of the end consumers. The development of local packaging units would also allow producers to capture a greater part of the income generated in the value chain.

The trade of mai hok dry shoots is controlled by PAFO through a quota system. In addition, DAFOs allow traders to work exclusively in specific villages in order to avoid conflicts and make sure that traders have sufficient supply.

This arrangement is deemed unfair by producer groups who cannot bargain the selling price. In the end, with important price fluctuations at Nameo border, the risk is that producer groups stop producing or sell to unauthorized traders.

3.3. Mai khouane and Mai Hea slats and sticks

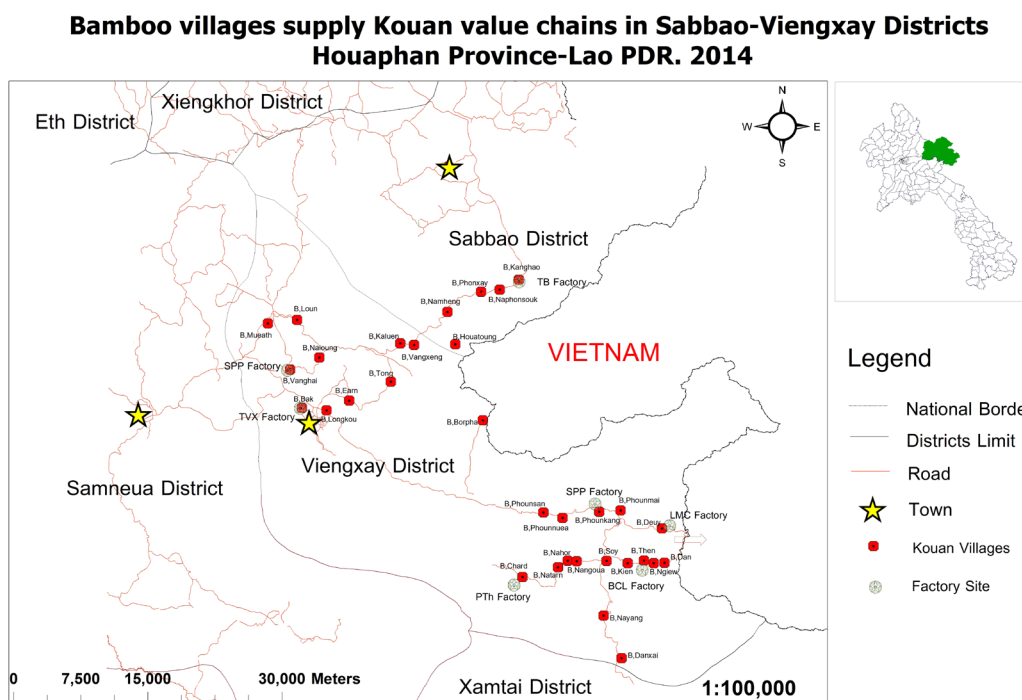


Figure 14. Target villages of the Bamboo Project for Kouane bamboo slats and sticks value chain

Mai khouane (*Dendrocalamus longifimbriatus*) poles are generally harvested by villagers in the forests after the high agricultural season, from November to July. The poles are then transported along the road and/or in the villages and cut in rough slats.

The value chain then basically involves processing companies that buy and collect the slats, export part of the stock – as is or further refined into thinner slats (Figure 15) – and process another part into sticks also for exportation (Figure 16).

The amount and proportion of slats and sticks that companies are allowed to export are governed by quotas delivered by the provincial authorities, with a clear priority put on processing within the country.



Figure 15. Mai khouane slats

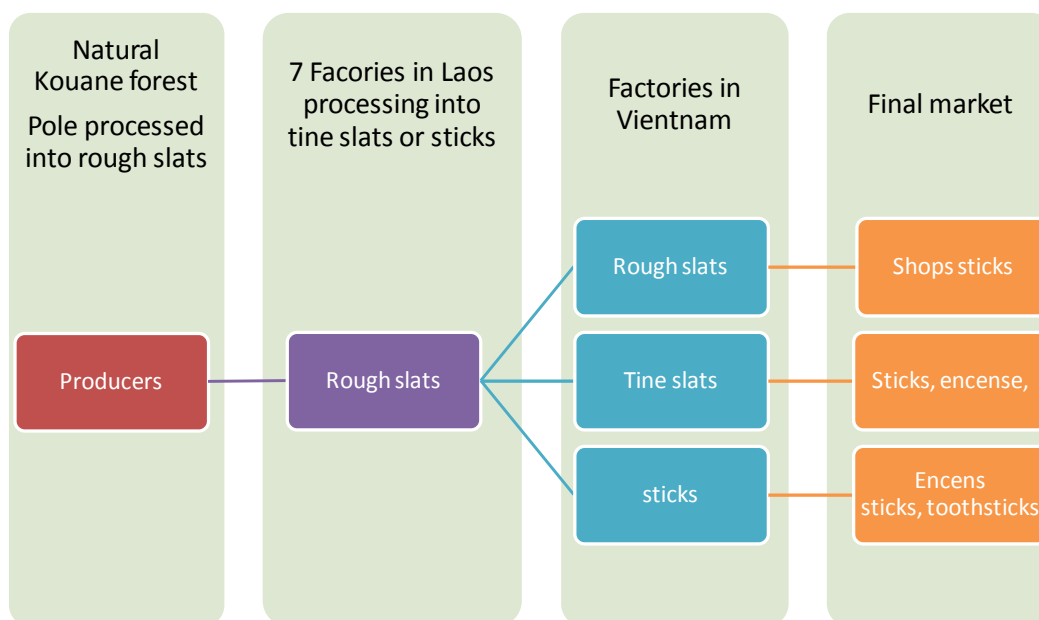


Figure 16. Mai khouane slats and sticks value chain(s)

After a number of factory opening and closures in the late 2000s, followed by activity from a single company in Viengxay district, the recent years have witnessed a significant growth in the sector. A total of seven companies were involved in mai khouane slats processing and marketing in Sobbao and Viengxay districts in 2015.

The population supplying these companies also increased significantly – from 7 villages and 247 households in 2011 to 21 villages and 825 households in 2014 (Figure 17). In 2014, producer groups supplied 3,800 tons of pre-processed mai khouane slats to seven companies, for a total value of 880 million kip. Yet, the average income per village

and per household decreased due to the poor results of newly established companies (facing delays in the establishment of their processing plants).

In average, villagers harvesting mai khouane were able to generate 1.1 million kip of annual income in 2014. With a growing demand from the Vietnamese market, the mai khouane slats and sticks value chain is a promising way for farmers to generate significant incomes by selling rough slats to factories in Houaphanh Province.

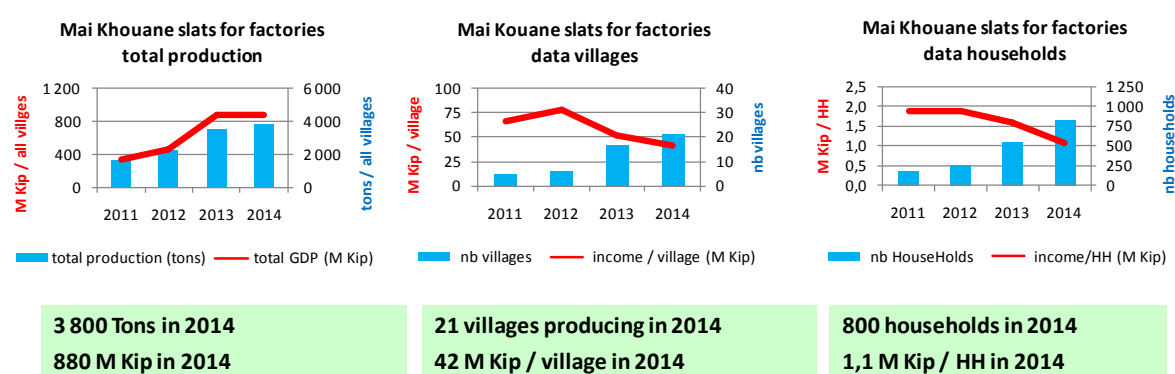


Figure 17. Mai khouane - production and incomes generated at the village and household levels (2011-2014)

The main issues faced by the actors of the mai khouane slats and sticks value chain include important seasonal variations in labor availability with significant labor scarcity during the high agricultural season and from there, irregular supply and economic vulnerability of the processing and export companies.

With limited monitoring by relevant agencies and a quota system that is not linked to the availability of the resource in the villages, there also risks in terms of overharvesting, land and resource grabbing and importation of labor force.

With regards to processing, while most of the companies were set up in 2013 when the provincial government allowed them to export slats before they built their processing plants, only two of them have completed the construction so far.

Nowadays, semi-finished products represent 40 to 45 percent of the exportations. The irregular supply of bamboo poles throughout the year appears as a major disincentive for companies to establish factories. A key challenge for the development of this value chain lies thus on the supply side. Support to the local communities for acquiring and operating the machinery or splitting tools to process the slats may help circumventing this

Promoted since 2008, the production and sales have steadily increased over the past five years, thanks to increased skills of the producers and improved quality of the products. The quality of the Houphan products is indeed renowned throughout the country.



Figure 19. Bamboo handicraft products

The handicraft and furniture value chain is particularly beneficial for rural communities. Traders generally rely on a network of producers from different villages and pass regular orders for handicraft and furniture items to supply the domestic market. They buy and collect the products and sell them in their shops, to other traders established in different provinces, or during trade fairs that are organized throughout the country (Figure 20). Villagers sometimes also sell part of their production directly in local markets.

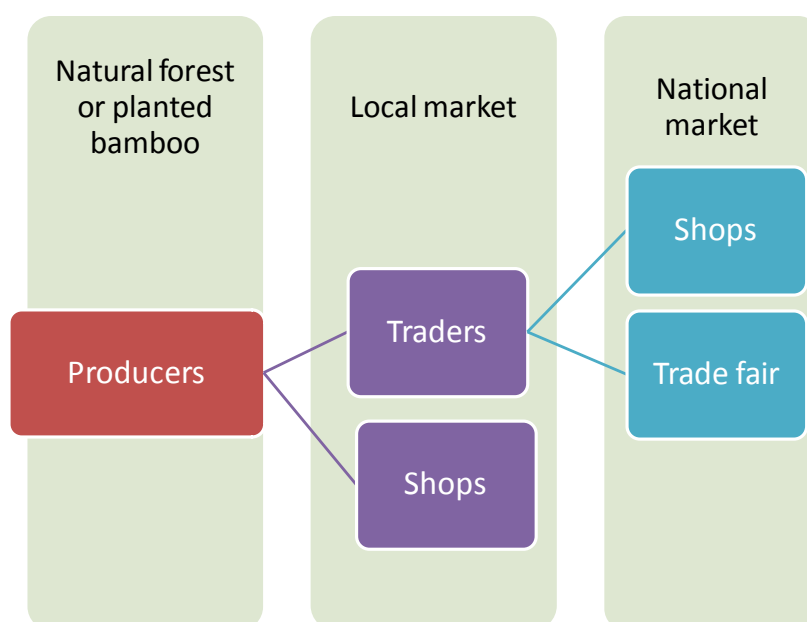


Figure 20. Bamboo handicraft and furniture value chain(s)

Monitoring of 34 target villages in Samneua, Viengxay and Sopbao districts shows a steady development of the sector between 2011 and 2014, with an increasing number of villages (from 20 to 34) and households (from 286 to 510) involved in bamboo handicraft and furniture production. In 2014, producer groups sold handicraft products to traders or directly in markets and trade fairs for a total value of 1,200 million kips.

This growing activity was accompanied by an increase in the revenues for producers who, in average per household, were able to generate 1.9 million kip in 2014 and, for some producers, up to 4 million kip. Although the activity is generally considered as a source of extra income, handicraft can be a primary income source for the poorest households.

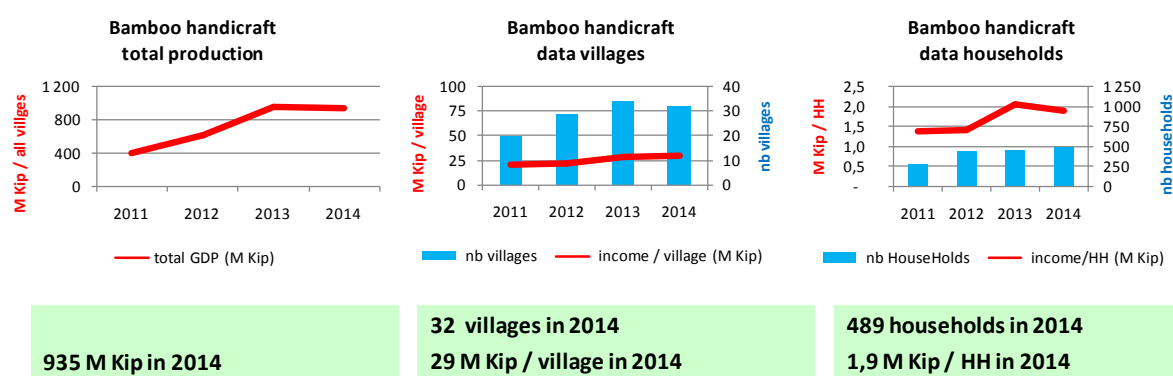


Figure 21. Handicraft - production and incomes generated at the village and household levels (2011-2014)

Handicrafts from Houaphanh province are in high demand on the domestic market due to the perceived high quality of its bamboo.

The main issues encountered in the sector include a still limited local production capacity which engenders recurrent delays in the delivery of items ordered by traders. In the absence of contractual arrangements between producers and traders, individual supply issues are also fostered by competition between traders.

Overall, communities could benefit much more from the activity if they were able to produce a larger variety of products oriented towards different niches and markets.

3.5. Other bamboo products and potential market opportunities

Mai luang (*Dendrocalamus barbatus*) plantations were introduced in the early 80s and more intensively since 2009 in several villages of Samneua, Viengxay and Sabbao districts (Figure 23). Other bamboo species were also introduced in recent years.



Figure 22. A bamboo plantation in Houaphanh Province

In 2014, a total of 595 households in 26 villages had established 191 hectares of bamboo monocultures and 140 hectares of mixed bamboo-trees plantations and intercropping. Bamboo-coffee intercropping and green fencing techniques were also being experimented and five local nurseries had been set up and trained in bamboo seedling production.

The mai luang plantations established in 2009 are expected to enter into production around 2017. Plantation owners will then have the possibility to market the bamboo poles

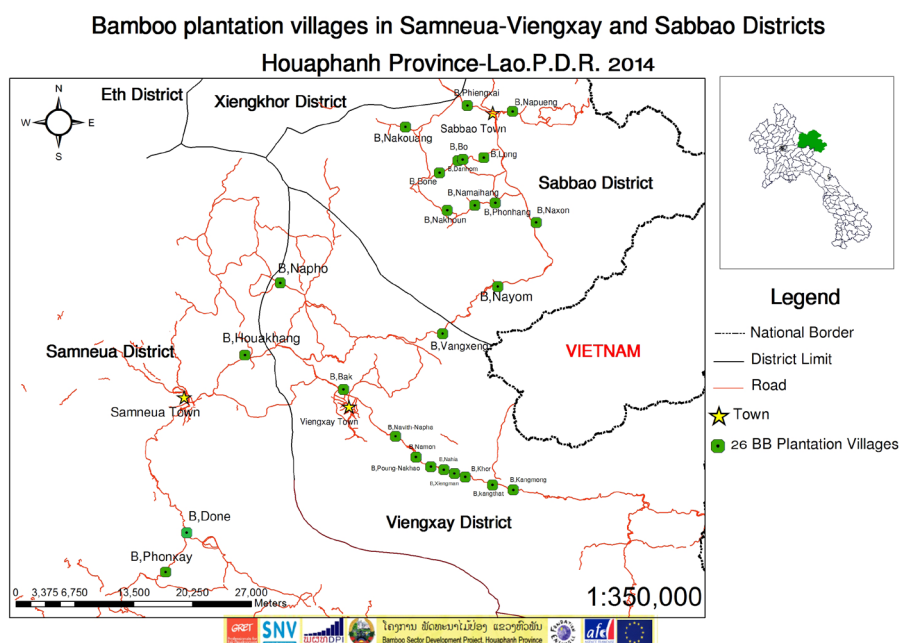


Figure 23. Location of the Mai Luang plantations supported by the Bamboo Project

Up until the end of 2012, mai xang (*Bambusa vulgaris*) natural forests were also exploited to supply a paper pulp factory established in Sobbao district. Nine villages started harvesting and selling mai xang poles to the factory in 2011. Two villages underwent specific forestland allocation and three villages developed forest management plans. Although the initial prospects appeared promising for both villagers and the factory owners, the activity was suspended after two years due to significant water pollution generated in the Nam Ma River.

In 2013, the Bamboo Project and DoNRE collaborated to resolve the pollution issue. Nevertheless, due to financial and investment problems unrelated to the value chain, the factory owners were not able to resume their operations.

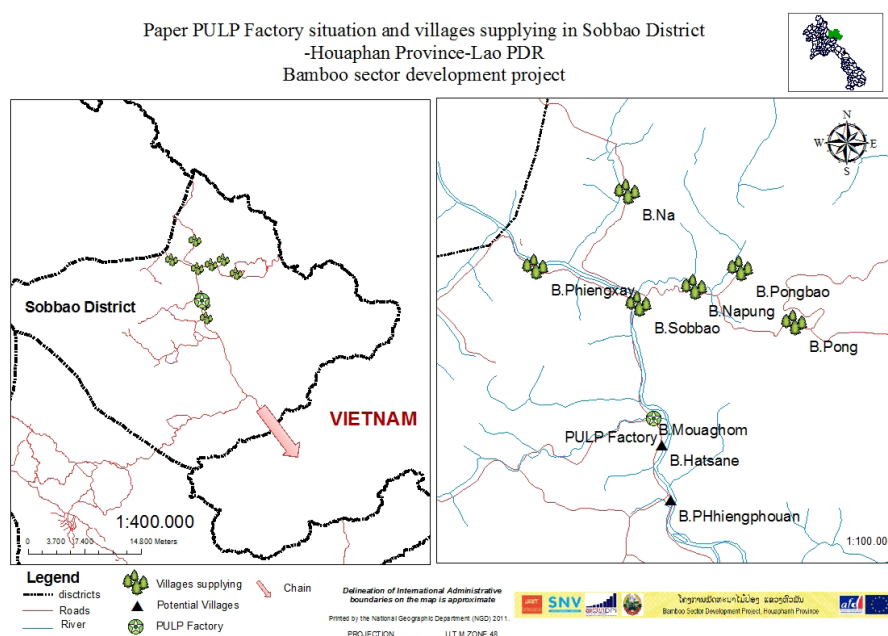


Figure 24. Villages supplying may xang to the paper pulp factory in Sobbao District

Finally, may cha (*Sirundinaria microphylla*) shoots are traditionally collected from natural forest and sold in the market for local consumption from March to May, and since 2014, villagers also started to sell mai cha poles to supply the Korean furniture market through Vietnamese intermediates.

Overall, the data on value chains and economic returns presented in this section suggest that the bamboo sector and the revenues derived from it have been growing quite significantly during the first five years of implementation of the provincial Bamboo Development Strategy. They also suggest that there is significant potential for further economic growth and enhancement of the value chains.

III. ACHIEVEMENTS AND LESSONS LEARNED

The development and implementation of the Bamboo Development Strategy 2011-2015 has constituted a unique experience of gathering a wide range of stakeholders – including government agencies, villagers, traders, private enterprises and international NGOs – and attempting collectively to foster the emergence of a sustainable bamboo industry at the provincial scale.

Given the limited development of the sector in Houaphanh Province, collective learning has been both a primary objective of the Strategy and a key byproduct of the activities conducted in the past five years. Three main ambitions were established through the 2011-2015 Strategy, namely fostering sustainable management of forestland and natural resources, supporting the development of diversified and profitable bamboo value chains, and creating an enabling policy and institutional environment for the bamboo industry.

Specific institutions such as the provincial bamboo task force, district and village bamboo working committees and local producer groups were set up to assist in the implementation of the Strategy. Various mechanisms were also experimented to facilitate interaction and coordination between the actors of the bamboo sector and, from there, to create the conditions for collective learning.

For instance, series of thematic multi-stakeholder workshops have been organized every year gathering all stakeholders involved in specific value chains (e.g. mai khome shoots, mai hok dry shoots, bamboo handicraft and furniture, khouane slats and stick). These workshops were designed as a forum for producers, village, district and provincial authorities, development practitioners, traders and private sector actors to review activities and assess the progress made during the past year, discuss the challenges for the coming year and devise ways to overcome these challenges.

This collaborative and iterative approach constituted a key mechanism aimed at fostering collective learning.



Figure 25. Annual multi-stakeholder value chain workshop

The main achievements and lessons learned during the first five years of implementation of Houaphanh Province's Bamboo Development Strategy are summarized below.

GOALS OF THE STRATEGY 2011 2015	ACHIEVEMENT IN 2015
1000 ha of plantation	331 ha of Luong planted 14 bamboo species 4 plantation techniques
2 000 ha of forest allocated to villages and managed	4 400 ha allocated 3 400 ha managed by villagers
1 million usd GDP	2011; 122 000 usd produced 2012 ; 223 000 usd produced 2013 ; 342 000 usd produced 2014 ; 400 000 usd produced
Creation of 1500 jobs	2 780 HH of 70 villages involved 487 HH on plantation 50 Services providers 23 Khome local traders 3 or more Hok Traders 7 factories processing Slats and sticks employing 374 labor force
Supportive policies approved	Supportive policies approved 4 village processing units 5 PLUP approved 12 + 4 Forest management approved, 5 still on process CLT in registering 16 registered groups; 9 in handicraft, 7 hok and Khom bamboo shoot Producers groups

1. LAND AND NATURAL RESOURCE MANAGEMENT

Three complementary mechanisms were experimented, combined and institutionalized in order to support collective learning and facilitate sustainable land and natural resource management at the village level.

The first mechanism is the “Combined Method” aimed at zoning and allocating bamboo forests and developing local management plans.

The second mechanism is an annual forest monitoring system set up and managed by the village bamboo committee with external supervision from DAFO.

Finally, experimentation and demonstration (E&D) plots have been established and managed by villagers with scientific support and monitoring from FRC/ NAFRI in order to test and showcase different forest management techniques.

1.1. Bamboo forest allocation and management

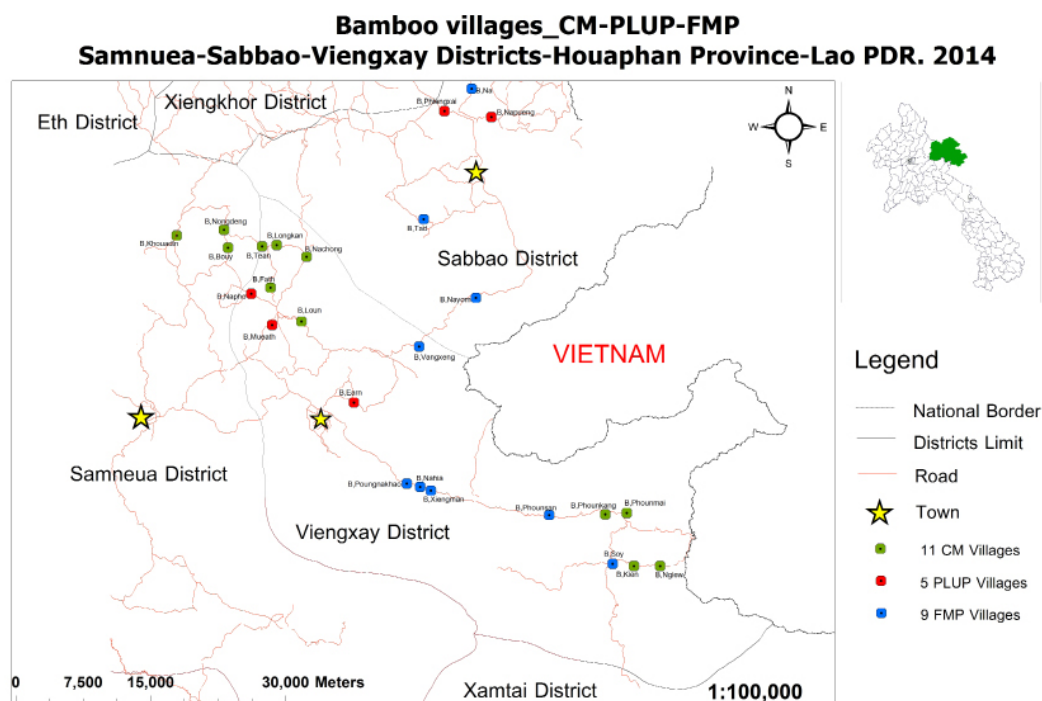


Figure 26. Villages where PLUP, FMP and CM have been applied

The approach to land zoning, bamboo forest allocation and management has significantly evolved over the past five years. An ad-hoc method for developing bamboo forest management plan was initially applied in 9 villages. Then, in an effort to standardize the method, a comprehensive participatory land-use planning approach was experimented in 5 villages. As the latter approach proved overly time and resource consuming, a 'Combined Method' was finally designed and applied in 12 villages (see Figure 26).

Following an 11-step guideline, it consists in setting up a village bamboo committee, realizing a participatory village and forest land zoning, identifying and inventorying bamboo forest resources, and developing a forest management plan.

This 'Combined Method' is generally conducted by district staffs in coordination with the village authorities/bamboo committee. The method has been developed with specific and participatory tools (e.g. 3D maps of the village lands).

DAFO and DONRE technicians from 3 districts were trained to implement the method. During implementation of the 2011-2015 Bamboo Development Strategy, a total of 4,400 hectares of bamboo forests have been allocated to 26 villages.

Management plans have been designed with villagers and established in 16 villages for 3,400 hectares of the allocated bamboo forests and 5 Forest management plan where the process has been initiated.

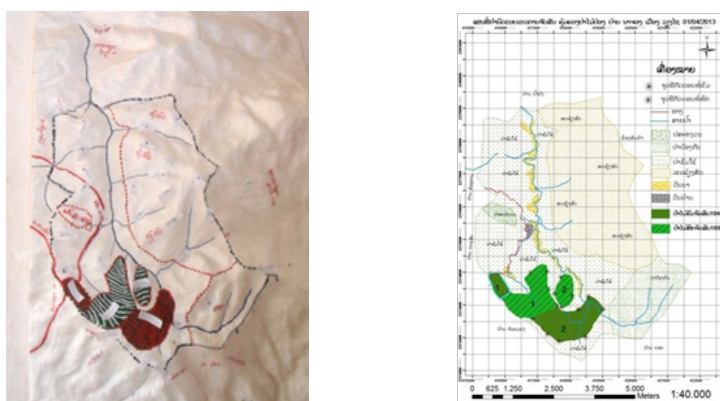


Figure 27. Bamboo forest zoning on a 3D model and the resulting digital map in one village

1.2. Forest monitoring

Forest monitoring is conducted before and after the bamboo season on the natural forest supplying the 4 value chains. In 2014, it was conducted in a total of 29 villages (thus including villages that do not have forest management plans).

The main objectives of the monitoring process are to check and control the good use of the forest and discuss eventual problems arising from forest rules and regulation. It allows village bamboo committees to improve their management year after year and provides valuable information to district and provincial level stakeholders who receive annual reports from participating villages.

1.3. Experimentation and demonstration

Because the scientific data on bamboo forest management are generally limited at the international level, a number of E&D plots have also been established in 8 villages.

These plots are used to experiment 3 different management techniques and scientific protocols have been developed for monitoring the growth and productivity of several bamboo species (i.e. hok, khom, dja, khuane, xang). In the short term, the data collected on these experimentation plots may allow further improvements in bamboo forest management on a larger scale.

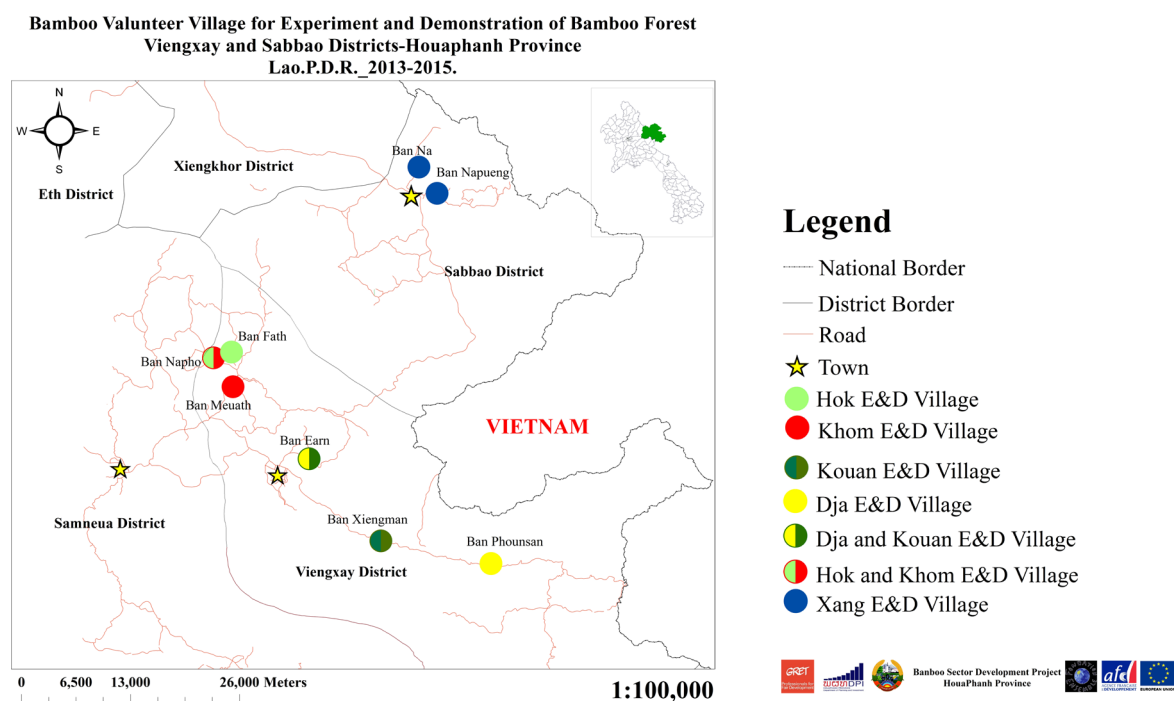


Figure 28. Villages with E&D plots

2. BAMBOO VALUE CHAINS AND BUSINESS DEVELOPMENT

2.1. Value chain development

During the past five years, significant efforts have been made towards the establishment and capacity-building (e.g. production, bargaining and marketing capacity, quality improvement) of village producer groups for four main bamboo value chains, namely mai khom shoots, mai hok dried shoots, mai khouane slats and sticks and bamboo handicraft and furniture.

An increase in the average price of bamboo product of the four value chains was recorded in recent years that is partly due to the increased bargaining skills of producers that can be directly linked to their increased capacities in group organization and enhanced business skills. With a relatively high domestic demand, bamboo products constitute a valuable option for the farmers of Houaphanh Province to generate extra income.

However, the value chain remains quite fragile and constrained by substantial inter-annual variations in the resource and the poor marketing skills of local producers. As a potential way forward, discussion has been engaged between producer groups regarding the creation of a broader bamboo association or cooperative.

2.2. Business model improvement

Producer groups have been trained to develop yearly business plans (including cost-benefit analyses) at the beginning of the season. Over time, this process has led to a broader reflection on the efficiency of the value chains and optimal strategies for producers to increase individual and collective revenues.

In turn, the reflection has allowed identifying possible options for improving business models. Regarding the mai hok value chain for instance, better linkages between the quota system and the actual bamboo resources available, the creation of “processing units” (gathering collectives of producers for oven-dried mai hok shoots) and the certification of the value chain with an ecological quality label (PGS) have been identified as valuable options.

Similarly regarding bamboo handicraft, the development of plantations has been identified as an interesting alternative to the exploitation of remote and/or poorly diversified natural resources.

3. ENABLING ENVIRONMENT FOR THE BAMBOO SECTOR

3.1. Capacity building

Around twenty staffs from various state agencies (i.e. District and Provincial Agriculture and Forestry, Natural Resources and Environment, Industry and Commerce, and Planning and Investment offices) and mass organizations (i.e. Lao Women's Union) have received on-the-job technical trainings to support different components of bamboo value chains, from forest management to trade of bamboo products.

These trainings have been an opportunity for cross-department collaboration and collective learning.

However, staff turnover and an enduring lack of human resources limit the capacity of the government to support the bamboo sector in the long term. To address this issue, 50 local service providers from 24 villages have also been trained for providing services in all villages. 8 villagers are specialized in bamboo plantation including 5 villagers have been trained to operate nurseries for the production of bamboo seedlings; 21 volunteers are engaged in the management and data collection on E&D plots; 9 local service providers are specialized in training on handicraft and furniture; and 7 villagers have been trained on Forest Monitoring method and Forest Inventory techniques. In the future, these local 'specialists' could be mobilized for specific services by a Bamboo Service Center.

3.2. Structuring of the bamboo sector

Efforts at structuring the bamboo sector have also seen the emergence of bamboo producer groups on handicraft, bamboo shoot harvesting and commercialization, mai khouane and xang supply for slats, sticks and paper pulp, and bamboo plantation in the three districts of Samneua, Viengxay and Sobbao.

Continued promotion and structuring efforts are needed, however, as these groups display different levels of organization – i.e high for mai hok and khom shoots, medium for handicraft, and very low or even non-existent for the mai khouane and xang related-activities.

Nevertheless, in 2015, the twenty more dynamic and structured producer groups were engaged in official registration by the Department of Industry and Commerce.

With regard to the development of an enabling policy and institutional environment, the provincial and district authorities have authorized the establishment of a fee system on the trade of bamboo products: 200 kip / kg of mai khom shoots, 400 kip / kg of mai hok dried shoots, 5 kip / kg of mai khouane slats and 2% of the handcrafted items value.

The fees are paid by traders and companies to the bamboo producer groups to finance forest monitoring and strengthening of the production and marketing activities.

3.3. Strengthening land and resource tenure

The “Combined Method” for bamboo forest allocation and management planning, the forest monitoring process and the E&D setup have all been endorsed and appropriated by the provincial and district authorities.

Communal Land Registration and Titling is also currently being piloted for the purpose of securing the rights of villagers on communal bamboo forests.

In 2015, the method was tested in one pilot village in collaboration with the Northern Uplands Development Program (NUDP component led by MoNRE and GIZ). This project is implementing CLT and individual land titling in Viengxay district and has already registered bamboo forests under CLT in Soye Village Cluster. Under the framework of NUDP, the experience will be replicated in villages of Houaphanh Province.

Overall, the first four years of the Provincial Bamboo Development Strategy have shown positive results.

The collective learning mechanisms developed and established in partnership with the provincial and district authorities, villagers and bamboo producers, traders and other private sector actors seem to be effective and actually contributed to transform the bamboo industry of Houaphanh Province.

However, a series of challenges need to be considered:

- Maintain the mechanisms for collective learning
- Extend practices of sustainable forest management to all villages engaged
- Meet the demand of new villages who want to be involved in the bamboo sector
- Consolidate and improve the business models
- Strengthen the capacities of the bamboo producer groups
- Strengthen the capacity of technicians, extension workers and village service providers

The following sections describe these challenges in more detail and identify a number of avenues to address them.

IV. PROSPECT AND CHALLENGES

1. PROSPECTS

Abundant natural bamboo resources: The natural forest is abundant and is managed sustainably in order to maintain a permanent vegetal cover. Sustainable bamboo forest management and fast renewal of the resource contribute to improving household nutrition and strengthening food security in case of difficult conditions and adverse events caused by e.g. climate change.

Image of the bamboo from Houaphanh Province is growing positively. Bamboo products such as shoots and handicraft are increasingly renowned nationally and in neighboring Vietnam as quality, organic products thanks to e.g. PGS certification. This recognition provides a window of opportunity to diversify the bamboo value chains and find new markets. It also increases the public recognition of Houaphanh Province both nationally and internationally.

Multiple benefits from natural bamboo forests: Protection of the natural bamboo forests helps maintaining important food reservoirs to achieve national nutrition goals. The development of bamboo-based value chains and businesses is also in line with the growing environmental concerns and demand for 'green products' of consumers worldwide. A growing bamboo industry also means more communities, producers and traders involved and positive impacts on the socioeconomic development of the Province.

High interest from the local communities: Local communities can find sound alternatives to customary slash-and-burn agriculture. Bamboo harvesting, processing and sale provide non negligible additional revenues for local communities. The bamboo industry contributes to diversifying and improving rural livelihoods and to reducing the economic vulnerability of rural households.

Bamboo activities are providing a good complementary income to local communities and create job at village level, there are more and more village traders and villagers involved on processing. This improves the Province GDP and bamboo can be seen as a "green gold".

Collective learning and knowledge production: During the first five years of implementation of the provincial Bamboo Strategy, lessons have been learned, methods

and tools have been developed and government and local technicians have been trained in relation to forest monitoring, producer group organization and so on. All stakeholders involved can build up on this collective learning experience to scale up their efforts.

High interest from the Provincial Authorities: The Province is keen to see the emergence of a more sustainable bamboo sector through the creation of bamboo producer organizations (associations or cooperatives) and a bamboo service center to provide advice and training.

Houaphanh Province's initiative on bamboo is recognized nationally. The initiative feeds national policy debates on rural development, land titling, producer organizations, village funds, taxation, and so on (e.g. lessons learned shared at various SSWG meetings and a National Bamboo Workshop held in Vientiane in July 2015). Further contributions can be expected in relation to national discussions on policy guidelines for developing the NTFP sector.

International development agencies show strong interest and willingness to continue supporting the sustainable development of the bamboo sector in Houaphanh Province.

2. CHALLENGES

Bamboo-related activities are still considered as a secondary occupation by villagers. As a result, bamboo factories are facing difficulties to get regular and sufficient supply of raw material. In fact, the province does generally not benefit from the added value from processing as exports concern primarily raw material or half processed products.

Natural bamboo **blossoming** affects the functioning of bamboo value chains and has impacts on the livelihoods of bamboo producers.

Mismanagement of the bamboo forests by villagers indicates that there is **still a need for strengthening VBCs**, disseminating forest management rules and regulations and securing the resource through the establishment of CLTs.

The government plays an overly limited advisory and control role, especially with regards to forest monitoring and contract monitoring between producer groups and the private sector. Enforcement of rules and regulations by the district and provincial level for the development of the bamboo business needs to be more effective.

Producer organizations must be better structured and further strengthened as some producers groups still lack the capacity and confidence to negotiate contracts and prices with the private sector.

The procedures on **legal recognition** of the local private sector, service providers and producer groups need to be simplified.

Rules and regulations on trade in the bamboo value chains at the district and provincial levels remain unclear and poorly homogenous.

Significant turnover within government extension agencies challenges the long term implementation of the Provincial Bamboo Strategy and the functioning of established institutions.

Without **funding and specific projects supported by international donors**, it remains unclear how the new leadership will facilitate the development of the bamboo sector in the province.

V. DEVELOPMENT PLAN

This section discusses the key priorities for fostering the development of a sustainable bamboo sector in Houaphanh Province. Figure 29 illustrates how these priorities are set up and structured: from an overall vision of the future of the bamboo sector to an actual action, monitoring and evaluation plan.



Figure 29. The pyramid of the sustainable development of the bamboo sector

The vision is what we want to see, how we want the bamboo sector of Houaphanh to be, by 2020. The goals represent our ambitions - what we want to achieve by 2020. They provide the bases to measure our successes and failures.

The objectives are the milestones we need to achieve within the period 2016-2020. These are the various steps we need to take to be able to reach our goals.

1. VISION OF HOUAPHANH PROVINCE FOR 2020

We see Houaphanh as the leading province in Lao PDR in the development and management of a sustainable bamboo industry, providing **“green gold” (kham kiao) to the people and contributing to poverty alleviation.**

Our vision is guided by the following principles by which activities, programs and projects will be evaluated and prioritized:

1. Maximization of returns by promoting value-adding processes and products rather than exporting raw materials,
2. Optimization of the benefits for the people of Houaphanh with a fair and equitable sharing of revenues between and among businesses, government and the communities at large,
3. Involvement of and consultation with all stakeholders in the development and implementation of the plan,
4. Ensuring the protection of the environment,
5. Reducing poverty and enhancing food security through income generation and the sustainable use of natural resources, resulting in overall reduction in malnutrition.

2. OUR GOALS FOR 2020

Towards the realization of our vision, our ambition is to achieve the following goals by 2020:

- 5 000 Household involved in bamboo activities (1800 HH in 2015)
- Expand the allocation natural bamboo forests to villagers, forest management plans and forest monitoring activities in 10-30 new villages or 5 000 ha (26 villages and 3400 ha managed in 2015)
- Design and implement new activities to support new potential bamboo value chains (May Dja or other)
- Generate USD 1,0 million from domestic trade and exports of bamboo products (USD 450 000 generated in 2010-2015)
- Approve and implement favorable and supportive policies on bamboo resource allocation and tenure, import and export tax reduction and exemption, investment incentives and improvement of the quota system
- Create a Bamboo Service Center as an independent entity able to provide services to bamboo value chains stakeholders; an entity that will continue supporting the sustainable development of the sector
- Gather the bamboo Producer Groups into a broader organization (association or cooperative)

These goals will be pursued through three strategic components:

1. Sustainable resource management
2. Bamboo business development
3. Enabling policy for developing the bamboo sector

3. OUR OBJECTIVES FOR THE PERIOD 2016-2020

To reach our goals, we aim to achieve milestones or objectives between 2016 and 2020. The objectives, differentiated per strategic component, are as follows:

3.1. SUSTAINABLE RESOURCE MANAGEMENT

The objective is that villagers protect and use sustainably their natural bamboo forests. Villagers are managing the bamboo forests following a clear management plan and conducting yearly forest monitoring. The Village Bamboo Committee, under the VLMC, is responsible for the good use and management of the natural bamboo forests.

3.1.1. Bamboo forest allocation and management planning

The objectives are to:

- Expand bamboo forest allocation and management planning to more villages, 10 to 30 villages or 5000 ha in the target area
- Expand bamboo forest management rules and regulations to more villages, 10 to 30 villages or 5000 ha in the target area
- Strengthen the VBCs on their responsibilities
- Continue to coordinate on PLUP with other projects operating in and around Houaphanh Province

3.1.2. Annual Bamboo Forest monitoring

Every year, the VBC and PAFO/DAFO will control the status of the natural bamboo forests, discuss with villagers and improve the rules and regulations on forest management

- Expand to more villages the knowledge and methods developed during the implementation of the first Bamboo Development Strategy (2010-2015)

- Extend the forest Monitoring to more villages

3.1.3. Research on bamboo forest management (E&D)

Since 2013, experimentations on the management of five bamboo species (Koane, Dja, Khome, Hok, Xang) have been initiated in 8 villages, in collaboration with FRC.

- Expand E&D activities to other profitable bamboo species

3.1.4. Bamboo plantations and nurseries

- Conduct a market study for May Luong
- Develop kouane bamboo plantations and nurseries
- Develop bamboo plantations to supply handicraft value chains
- Develop the different techniques of plantation
- Strengthen the service providers to deliver training on setting up a nursery and bamboo plantation

3.2. BAMBOO BUSINESS DEVELOPMENT

3.2.1. Producer groups and service providers

- Strengthen the Producer Groups on quality, finance and management to foster their official recognition by the government (30 groups)
- Develop further the village bamboo funds
- Ensure the legal recognition of overarching organizations (associations or cooperatives) of Producer Groups involved in different bamboo value chains
- Ensure the legal recognition of an organization of service providers (Bamboo Service Center) able to support villagers, private sector actors and government agencies

- Build collective processing and market place for producers organisations
- Ensure the registration of 3 to 4 new local traders
- Support the establishment of 10 local processing units / village small enterprises

3.2.2. Product quality, processing and marketing (PGS)

- Improve the quality of the products through quality control activities managed by the producer groups
- Diversify the productions through the establishment of local processing units (khome shoots), the introduction of new techniques and tools for processing and by storage, and the development of new designs (handcrafted products)
- Ensure the PGS certification of hok bamboo shoots originating from the province
- Ensure government's close monitoring of contracting agreements between producer groups and the private sector

3.2.3. Market expansion

- Develop a market database by value chains to be shared with all stakeholders
- Diversify the market outlets of all value chains (including both domestic and foreign markets)
- Facilitate the development of new, promising value chains such as May Dja shoots and poles
- Organize a Trade Fair event every year in Houaphan Province

3.3. ENABLING POLICY FOR DEVELOPING THE BAMBOO SECTOR

3.3.1. BAMBOO FORESTS AND PLANTATIONS PLOT ALLOCATION AND SECURED TENURE RIGHTS

- Individual household land titles are delivered for bamboo plantations on individual plots
- Communal land titles are delivered for village natural bamboo forests

3.3.2. Link forest management and monitoring plans to the quota system

- Coordinate between different government agencies to have trading quotas reflecting the actual status of the bamboo resources (assessed through annual monitoring)
- Strengthen the communication between government agencies, the private sector and villagers

3.3.3. Enable policy to officially recognize bamboo-related organizations

- Ensure that all producer groups organizations, service providers organizations, traders and traders organizations are recognized, overseen and protected by appropriate legislation

3.3.4. Flexible policy system to attract investors

- Design, establish and implement adapted policy on tax exemption for MSMEs, investment, import and export incentives
- Design, establish and implement adapted policy to minimize tax (quota based) for the harvesting natural bamboo stands

4. GEOGRAPHIC FOCUS

The bamboo development plan will focus on 70 target villages in the three districts of Xamneua, Viengxay and Sabbao (Figure 30). Expansion of the plan will be considered depending on progress achieved in these priority areas and availability of funding.

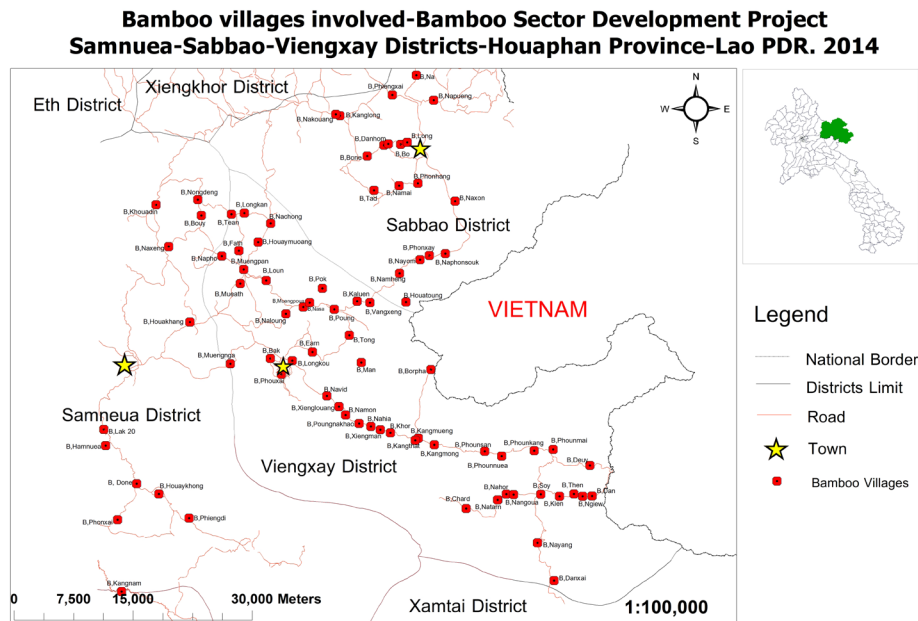


Figure 30. Villages involved in the bamboo sector in 2014

5. INDICATIVE ACTION PLAN (ANNEX 1)

6. FUNDING STRATEGY

The provincial government of Houaphanh shall set up an initial bamboo development fund with an initial allocation of USD____. International partners are also willing to seek additional sources of funding and provide support for implementation of the implementation of this Second Bamboo Development Strategy.

The bamboo development fund shall be used by the province as a leverage to secure funding from international donors. The provincial government, with the active involvement of the provincial departments shall prepare funding proposals and discuss potential funding with interested donors. Resource mobilization shall be the responsibility of departments concerned.

7. MONITORING AND EVALUATION

REPORT	FREQ UENCY	INFORMATION/ CONTENT	SOURCE OF REPORT	USER OF REPORT
Quarterly report	Quarterly	Achievements for the last quarter – targets versus actual results Facilitating and hindering factors Major challenges encountered and solutions to overcome challenges Recommendations and activity plans for next quarter	District task Force	Provincial task force Governor's office Bamboo Service Center Bamboo producers organizations Donors and international agencies
Annual report	Once a year	Achievements for the year – targets versus actual results Facilitating and hindering factors Major challenges encountered and solutions to overcome challenges for the year Recommendations and plans for next year	BBTF	Provincial task force Governor's office Bamboo Service Center Bamboo producers organizations Donors and international agencies
Value Chains workshops	Once a year, for each value chain	Achievement of the work done per value chain Up-to-date analysis of the value chain functioning Definition of the best business models Resolution of potential conflicts Discussions between private sector, government, Villagers, BSC	Bamboo service center and bamboo producers organizations	BSC All stakeholders of the value chains
Evaluation	Mid-term (2017) and final (2020)	Review of progress in achieving the goals Review relevance, efficiency, effectiveness and sustainability of the strategy Achievements - planned versus actual Key facilitating and hindering factors Areas for improvement and recommendations for the next 5-year plan	BBTF External consultants	BBTF All stakeholders

VI. INSTITUTIONAL ARRANGEMENTS

1. GOVERNMENT-LEVEL ARRANGEMENT

Similar to the previous strategy, the government-level institutional arrangement will follow the structure illustrated in Figure 31.

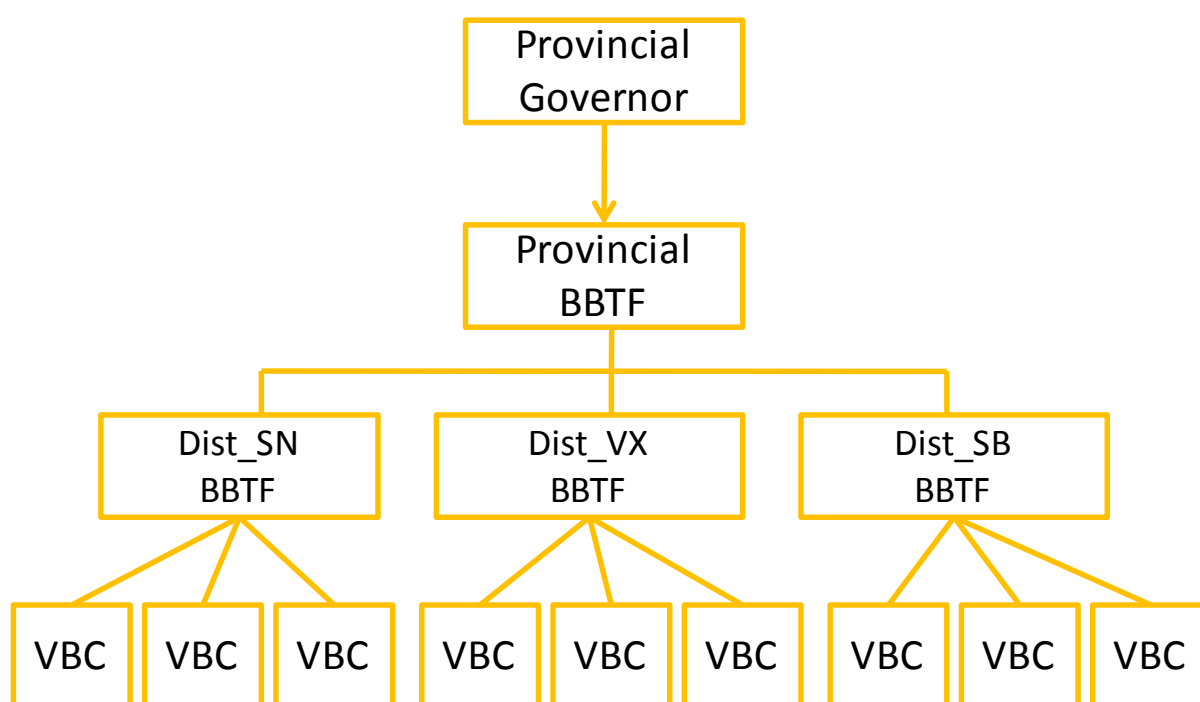


Figure 31 : Government institutional arrangement, from province to village.

1.1. PROVINCIAL TASK FORCE

The provincial government of Houaphanh will maintain the bamboo taskforce as an apex body to oversee the implementation of the strategy. The taskforce is composed of the department heads (or their assigned representatives) from DPI, DOIC, PAFO, PONRE, LWU as well as representatives from the private sector and international donor organizations.

The chair of the taskforce is appointed by the governor. The main responsibilities of the taskforce are:

- To oversee overall implementation of the strategy,
- To ensure coordination among different departments, donor agencies and international organizations,
- To initiate regular strategy reviews and consultation meetings on a semiannual basis, and
- To revise and adapt the strategy and operational plans based on changes in the social, economic and political situation.

1.2. DISTRICT BAMBOO WORKING COMMITTEE

The district committees are in charge of planning and coordinating all activities at the district level. The committees are composed of district officers from the relevant departments and associations (DOIC, DAFO, DONRE, LWU, etc.) and representatives from the private sector. The chair of the district committee is appointed by the District Governor in close consultation with the provincial taskforce. The main responsibilities of the bamboo working committees are:

- To plan and coordinate activities at the district level,
- To conduct regular reviews and resolve problems at the district level,
- To revise plans and activities based on changes in the social, economic and political situation in consultation with the provincial taskforce, and
- To report implementation and progress to the provincial taskforce.

1.3. VILLAGE BAMBOO COMMITTEES

The village committees are in charge of managing and monitoring natural bamboo forests. They are composed of 8 to 12 members, all representatives of the local administration. VBCs are officially endorsed by the District Governor and their responsibilities are set up during implementation of the Combined Method.

2. ORGANIZATIONS OF PRODUCER GROUPS (ASSOCIATIONS OR COOPERATIVES)

Producer groups of the Khome and Hok shoot value chains are already represented by committees. These committees are composed by individuals who contributed to design and set up the fee system supplying village bamboo funds.

This model of producer groups organization will be replicated for other value chains, eventually leading to the establishment of “value chain organizations”. Following successful experiences in other settings (e.g. AGPC cooperative in the Bolovens plateau), these organizations may in turn be registered as associations or cooperatives under the Prime Minister’s Decrees No. 115 (Associations) and No. 136 (Cooperatives).

Such organizations could help producers strengthening the organization of their activities – from collection of the raw products to processing, marketing and trade.

Producers could also be empowered with organizations capable to negotiate fair prices with collectors and traders, collect fees from the private sector, supply village bamboo funds and develop the value chain through credit schemes or other financial arrangements.

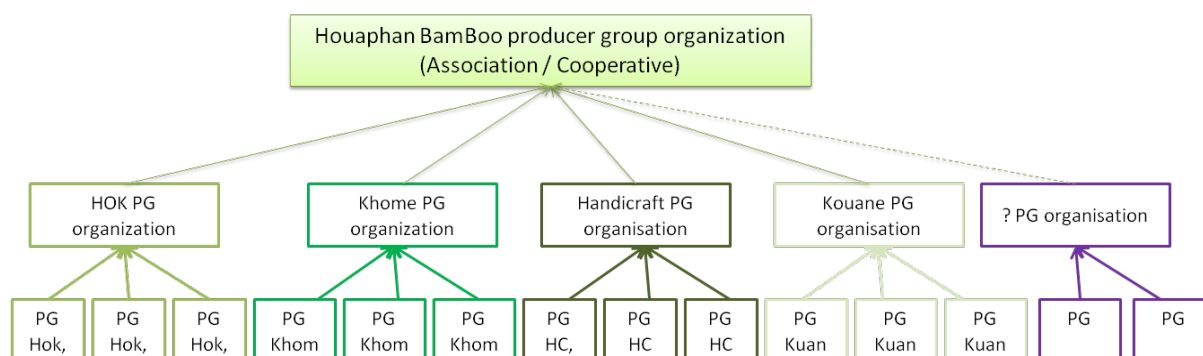


Figure 32. Producer groups organizations by value chain, overseen by a supra organization

In the longer term view, an Executive Bamboo Board linking the producer groups organizations of all value chains may be envisioned to defend the interests of the bamboo sector.

3. THE BAMBOO SERVICE ORGANIZATION

iNGOs have been supporting Houaphanh’s bamboo sector since 2010.

In order to ensure the development of the sector without relying exclusively on international support, a promising avenue has been identified in the creation of a Laotian organization capable of supporting the realization of a long term vision.

Several technicians and advisors (especially those who have previously been working with iNGOs) have been trained and have acquired the necessary skills to provide technical, organizational and advisory services to villagers, private enterprises, government agencies and development projects involved in the bamboo sector.

Village service providers have also been trained on plantation and nursery techniques, forest management, E&D, and handicraft production.

These service providers will be organized as members of a bamboo Service Organisation. Although the Center should eventually be established as an independent legal entity, a first step could be to have it hosted by a recognized Laotian organization (e.g. DECA).

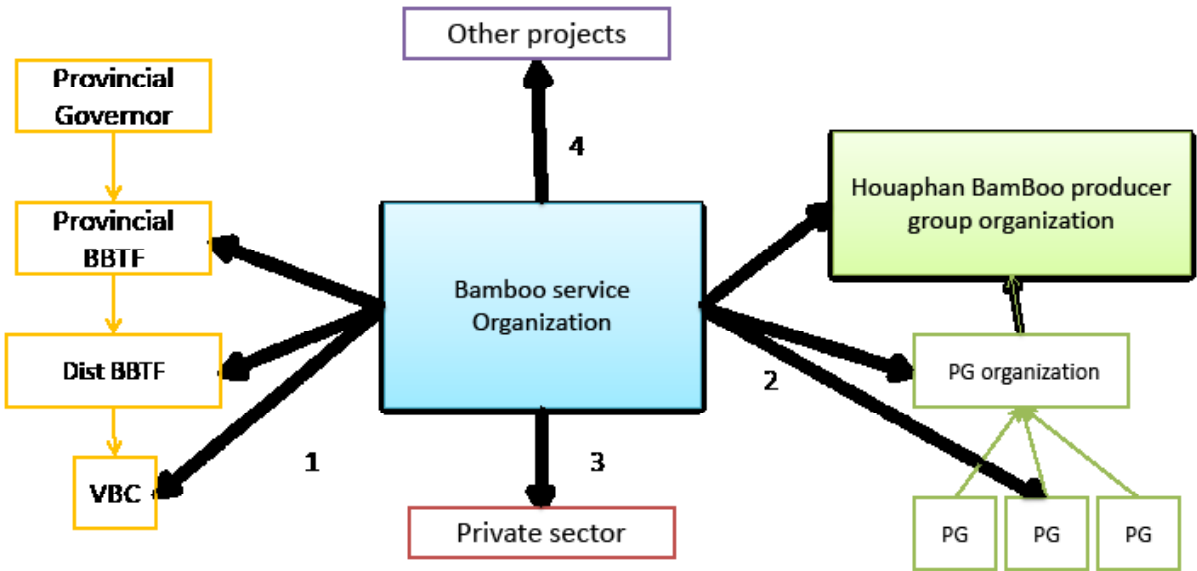


Figure 33. Organization of the Bamboo Service Organization and its service provision activities

1 SERVICES TO VBCs

Train and facilitate the identification of bamboo forests, in coordination with DAFO and/or DONRE

Train and facilitate the inventory of bamboo forests and the estimation of their sustainable capacity

Train and facilitate the design and dissemination of rules and regulations on bamboo forests

Train and facilitate forest monitoring

Train and provide information on land and bamboo forest governance

** these activities must be accompanied by DAFO and/or DONRE technicians*

1 SERVICES TO DISTRICT AND PROVINCIAL AGENCIES

Overall coordination between involved stakeholders

Organizing and sharing quarterly reports

Organizing Value Chain workshops

....

2 SERVICES TO PRODUCER GROUPS ²

Training on:

- forest harvesting techniques and tools
- product quality (techniques, organization)
- product development and new designs
- processing techniques, equipment & tools development
- production organization and planning (e.g. business plans, cost-benefit analysis, labor and input supply)
- marketing, bargaining, and contract negotiation
- financial management (book keeping, accounting, reporting)
- human resources and group management

Producing and sharing information on value chains (baseline studies, E&D)

Producer groups networking

** these activities must be accompanied by DOIC and/or DPI technicians*

2 SERVICES TO PRODUCERS ORGANIZATIONS

Training on:

- Conducting studies and sharing information on value chains
- Conducting research (E&D, business models...)
- Organizing value chain workshops
- Fund raising
- Organization, administration and finance management
- Project management...

3 SERVICES TO PRIVATE SECTOR

Market analyses and database

Support on registration and procedures (Quota, Taxes, registration)

Business models

4 SERVICES TO OTHER PROJECTS

For all kind of services

**THE PROVINCIAL
GOVERNOR**

**THE DIRECTOR OF
DEPARTMENT OF PLANNING
AND INVESTMENT**

ANNEX 1. INDICATIVE ACTION PLAN

INDICATIVE ACTION PLAN	ACTIVITY	LOCATION	TIME FRAME	AGENCY/PERSON RESPONSIBLE	AMOUNT OF FUNDS REQUIRED	SOURCE OF FUNDS
Consolidation of the Bamboo services provision through a Bamboo Service Organisation						
Strengthening the Bamboo Service Organisation	Training of the Bamboo services providers Recognition of the bamboo service organisation	Sam Neua		DECA, INDIG, DAEC Chamber of commerce		
Strategy: Sustainable resource management						
Target 1: Bamboo Forest allocation and management plan	Extend the forest allocation and management plan to more villages, 10 to 30 villages or to 5000 ha in target area	SamNue, Viengxay, Sobbbao		PAFO, DAFO		
	Extend the forest management rules and regulation to more villages	SamNue, Viengxay, Sobbbao		PAFO, DAFO		
	Strengthen the VBC on their responsibilities	SamNue, Viengxay, Sobbbao		PAFO, DAFO		
	Continue to coordinate on PLUP with other projects	SamNue, Viengxay, Sobbbao		PAFO, DAFO		
	Extend to more villages the knowledge and method	SamNue, Viengxay, Sobbbao		PAFO, DAFO		
Target 2: Annual Bamboo Forest monitoring	Extend the forest management rules and regulation to more villages	SamNue, Viengxay, Sobbbao		PAFO, DAFO		

Target 3: Bamboo forest management research (E&D)	Extend E&D to other profitable bamboo species	SamNue, Viengxay, Sobbao	PAFO, DAFO			
	Market study for May Luong	SamNue, Viengxay, Sobbao	PAFO, DAFO			
Target 4: Bamboo plantation and bamboo nursery	Develop Kouane bamboo plantation and nursery	SamNue, Viengxay, Sobbao	PAFO, DAFO			
	Develop bamboo plantation for handicraft value chain	SamNue, Viengxay, Sobbao	PAFO, DAFO			
	Develop the different technique of plantation	SamNue, Viengxay, Sobbao	PAFO, DAFO			
	Strengthen the Service providers to deliver training on setting up a nursery and bamboo plantation	SamNue, Viengxay, Sobbao	PAFO, DAFO			

INDICATIVE ACTION PLAN	ACTIVITY	LOCATION	TIME FRAME	AGENCY/PERSON RESPONSIBLE	AMOUNT OF FUNDS REQUIRED	SOURCE OF FUNDS
Strategy: Bamboo business development						
Target 1: Producer group and services providers organizations	Strengthen the Producers Groups on Finance, quality and Group management to be officially recognized by the government. (30 groups)	SamNue, Viengxay, Sobbao		DOIC, DDC		
	Develop the Village bamboo fund	SamNue, Viengxay, Sobbao		DOIC, DDC		
	Legal recognition of Producer groups organization (Association or cooperative) by Value chain	SamNue, Viengxay, Sobbao		DOIC, DDC, DAFO		
	Legal recognition of the service providers organization to deliver their services to Villagers, private sector or Government	SamNue, Viengxay, Sobbao		DOIC, DDC		
	Build a collective place for producers	SamNue, Viengxay, Sobbao		DOIC, DDC		
	3 to 4 new local traders are registered	SamNue, Viengxay, Sobbao		DOIC, DDC		
	10 more new Processing units / Village small enterprise	SamNue, Viengxay, Sobbao		DOIC, DDC		
Target 2: Product quality, processing	Improve quality of the production through the quality control of the producer group	SamNue, Viengxay, Sobbao		DOIC, DDC, DAFO		

and marketing (PGS)	Diversify of the production by processing (Khome shoot....), by introducing new technique (tools), by storage and by new design (Handicraft)	SamNue, Viengxay, Sobbao		DOIC, DIC, DAFO		
	The Hok bamboo shoot is certified as PGS	Viengxay		PAFO, DAFO		
	Contract between PG and private sector are strongly monitored by the Government	SamNue, Viengxay, Sobbao		DOIC, DIC		
	Develop a market database by value chain to be shared with stakeholders	SamNue, Viengxay, Sobbao		DOIC, DIC		
Target 3: Market expansion	Diversify the market of all value chains, domestic and foreign markets	SamNue, Viengxay, Sobbao		DOIC, DIC		
	Extent to more value chain as; May Dja shoot and pole and so on	SamNue, Viengxay, Sobbao		DOIC, DIC		
	1 Trade Fair organized per year	SamNue, Viengxay, Sobbao		DOIC, DIC		

INDICATIVE ACTION PLAN	ACTIVITY	LOCATION	TIME FRAME	AGENCY/PERSON RESPONSIBLE	AMOUNT OF FUNDS REQUIRED	SOURCE OF FUNDS
Strategy: Favorable Policy for bamboo development						
Target 1: Bamboo forest land and plantation plot allocation and securing villagers' right (CLT)	Individual land title are delivered on bamboo plantation individual plots to Household.	SamNue		PoNRE, DPI		
	Communal land title are delivered on Natural bamboo forest to the village.	SamNue		PoNRE, DPI		
Target 2: Link the FMP and forest monitoring to the quota system	Coordination between different government agencies to link the Quota to the Forest Inventory	SamNue		DPI, PAFO		
	Strengthen the communication between Government, private sector and villagers	SamNue		DPI, PAFO		
Target 3: Enable policy to officially recognize bamboo stakeholders organization	PG; Service providers, Traders and so on-	SamNue		DOIC		
Target 4: Flexible policy system to attract investors (taxes; export; processing...)	Policy on Tax exemption for MSMEs, import and export incentives, approved and implemented	SamNue		DOIC, Finance Dpt.		
	Policy to provide incentives to investors approved and implemented	SamNue		DOIC, Finance Dpt.		
	Policy to minimize tax (quota) for harvesting natural bamboo stands approved and implemented	SamNue		DOIC, PAFO, Finance Dpt.		