



PROJECT EVALUATION OF WWF SUSTAINABLE RATTAN PROJECT IN LAO PDR

Final report

Prepared for the WWF Greater Mekong Lao Country Programme
October 2011

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Note on spelling

There is no standardised romanisation of Lao words. This report attempts to be consistent and uses an English transliteration of Lao words.

Summary

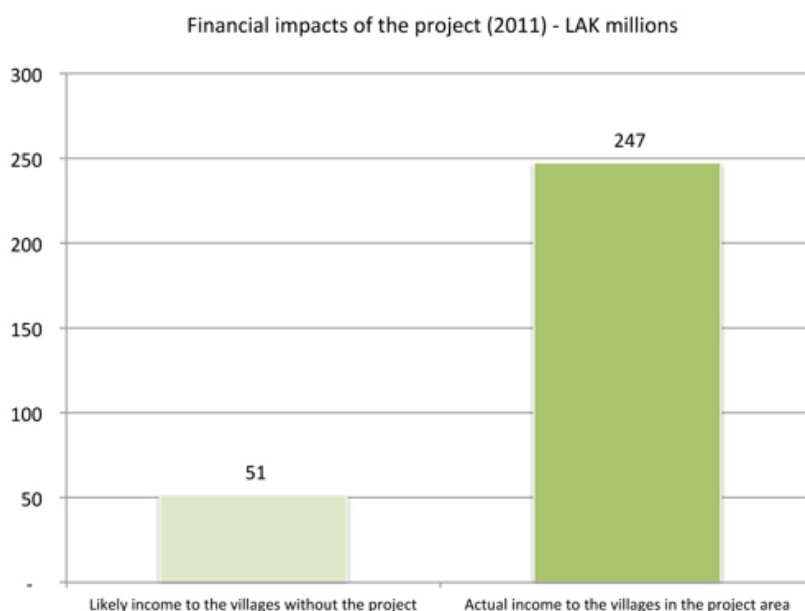
WWF's Sustainable Rattan Harvest and Production Project (the Project) has been operating since 2006 and will run until at least 2014. It operates in Lao PDR, Cambodia and Vietnam. From 2009 to 2011 part of the project has been part funded by the European Commission (EC), under its SWITCH-Asia Promoting Sustainable Consumption and Production programme. This report is an assessment of the Project's activities under EC funding in Lao PDR, aiming to:

Assess how the project has changed the rattan supply chain, with regard to sustainability and livelihoods. Particular attention will be paid to the project's impact on villagers and the participating small-medium enterprise.

This report is based on:

- Discussion and interviews with staff from all project partner organisations, including WWF, District Agriculture and Forestry Office, Forestry Research Centre, Lao National Chamber of Commerce and Industry and others.
- Village interviews conducted during a week visiting field sites in Bolikhamsai province.
- Review of project documents
- Review of project finances – see also accompanying report, Knowles (2011)

The project has had a major impact on the incomes of participating villages as can be seen from the graph below. A major factor contributing to this improvement has been the link to European markets and the boost this has given to management, certification and manufacturing processes.



(Source: Knowles (2011), based on project documents, financial records and interviews)

The Project has had major impacts on the rattan supply chain in participating areas. These impacts have been in the areas of:

- Forest management
- Rattan harvesting and preparation
- Handicraft manufacture
- Sales and export
- Government agencies

The impacts of the project on each of these areas are summarised in the tables below.

Forest management

Major impacts	Remaining challenges
Introduction of forest management based on quantitative surveys.	Improving quality of data and planning.
	Ensuring local economic benefits of forest management support improvements beyond the live of the project.
Capacity built in DAFO and village forest management groups.	Improving quality of data.
Economic incentive for forest management and sustainable harvesting being realised in some villages, changing the incentive structure for local resource use.	Strengthening this success and spreading it to other villages.
Private management of rattan nurseries, edible shoot plantations and enrichment plantings .	Strengthening this success and spreading it to other villages.
Increased numbers of other NTFPs and forest animals.	Achieving similar conservation outcomes in more villages, and ensuring these gains are also protected or managed sustainably.

Rattan harvesting and preparation

Major impacts	Remaining challenges
World's first FSC accredited rattan management areas.	Maintaining accreditation and certifying new villages.
Incomes increased through village involvement and better quality of rattan and equitable distribution of these benefits.	Ensuring other villages can also realise these benefits.
Capacity built in harvesting and preparation.	

Handicraft manufacture

Major impacts	Remaining challenges
Capacity built in handicraft manufacture.	Linking improvements in villages to markets and companies aside from the project.
Incomes increased through project's demand for final handicrafts.	

Sales and export

Major impacts	Remaining challenges
A first for Lao PDR - Export of container 2600 sets of rattan baskets to European markets using rattan harvested from within the project area, made by village handicraft groups.	Finding and filling future orders.
Improved capacity in exporting SME	Ensuring the sustainability of competent SMEs operating in the industry, with less project assistance.

Government agencies

Major impacts	Remaining challenges
Some impact on regulations, with local taxes being simplified for rattan harvesting and use.	Further simplification of regulations

Background

WWF's Sustainable Rattan Harvest and Production Project has been operating since 2006. It operates in Lao PDR, Cambodia and Vietnam. The project began with discussion between WWF and IKEA about non-timber forest products (NTFPs), particularly rattan, and NTFP supply from Southeast Asia.

From the outset the project has worked with stakeholders right through the rattan supply chain, from village-level harvesters, small and medium sized enterprises (SMEs) involved in rattan purchase, processing and trade and national and international retailers. Government departments and authorities involved in forest management and trade are also extensively involved. The project aims to improve practices throughout the whole supply chain through:

- improved forest management and reduced forest degradation,
- contribution to poverty alleviation,
- cleaner processing and production
- encouraging accountability and accreditation.

The European Commission (EC) has jointly funded the project from 2009 to 2011 to scale up the project begun by WWF and IKEA. This report is focused on an assessment of the EC requirements of the 2009 – 2011 period. An overview of the project's stages is provided below.

Phase	Period	Donors	Summary
Scoping phase	2006 April to September	IKEA	<ul style="list-style-type: none"> • Identified key rattan species • assessed rattan resources • researched harvesting system • researched market chain
Phase 1, "Pilot phase"	2006 to 2008	IKEA	<ul style="list-style-type: none"> • Pilot project areas established in Bolikhamsai and Vientiane Provinces. • Sample plots for forest management areas established and surveyed • Baseline socioeconomic data collected. • Harvesting plans developed and implemented. • Networks of rattan-related businesses established. • Study tours for participants to other parts of supply chain.
Phase 2, "Scale up"	2009 to 2011	EC and IKEA	<p>Project activities scaled up to include 40 villages in Laos. Main activities:</p> <ul style="list-style-type: none"> • Strengthening village-level rattan management and links to supply chain. • Introduction of cleaner production (CP) • Introduction of certification • Improving relevant legislation • Improving communications • Strengthening of stakeholder capacity
Phase 3, "Strengthening"	2012 to 2014	IKEA	<ul style="list-style-type: none"> • Strengthen village-level rattan management groups • Expansion of FSC sustainable forest resource management area • Linkage with IKEA and other suppliers • Improve research on rattan ecology and biodiversity

Objectives of this report

This report is an evaluation of the project's Phase 2, 2009 to 2011, funded by the European Commission. We have evaluated the project in line with the goals and activities in the European Commission SWITCH-Asia Promoting Sustainable Consumption and Production Grant Application Form, completed by WWF Austria in 2008. The specific title of this phase of the project is "Establishing a Sustainable Production System for Rattan Products in Cambodia, Laos and Vietnam". The scope of this report is limited to project activities in Lao PDR.

The particular objective of this study, developed by WWF and the assessment team is:

To assess how the project has changed the rattan supply chain, with regard to sustainability and livelihoods. Particular attention will be paid to the project's impact on villagers and the local SME.

Assessment team

The lead author of this assessment is Roderick Campbell. Rod is an Australian economist with considerable experience in development and project analysis. He has worked previously in Laos, including as a consultant to Phase 1 of the WWF rattan project. Rod works mainly for Economists at Large, Melbourne (Australia) based firm who specialize in bespoke economic research with a social or environmental focus.

Co-author Tristan Knowles is also a consulting economist with Economists at Large. He has worked on development projects in Indonesia and Malaysia. In addition to development, Tristan is interested in environmental economics, responsible investment and enterprise development.

Fieldwork for this assessment would not have been possible without the assistance of Viroth Beuypantoueth. Viroth works with Lao-based consultancy Enterprise and Development Corporation (EDC). Viroth has worked on community impact projects for mining companies and has been involved in HIV/Aids research projects in Laos.

Methodology

The assessment team spent a week in Vientiane in close contact with WWF project staff, reviewing project documents, finances and preparing for fieldwork. A week was then spent in Bolikhamsai Province, Khamkeurt District where interviews were carried out in four participating villages, Phonthong, Sopphuoanphoan, Thaveng and Boungpatao. Interviews with other stakeholders were conducted on return to Vientiane and by phone to officials in the Bolikhamsai capital, Paksan.

Discussions with WWF project members were unstructured, informal and extensive during the first week, though some formal notes were taken. Other stakeholder interviews were structured around the project's seven results areas as listed in section 1.7.2 Concrete outputs of the *Establishing a Sustainable Production System for Rattan Products in Cambodia, Laos and Vietnam* application form. These result areas are:

- Result area 0: Action operational, with monitoring system established
- Result area 1: Rattan supply chains
- Result area 2: Cleaner Production
- Result area 3: Certification and export links
- Result area 4: Policy
- Result area 5: Sharing results and lessons learned
- Result area 6: Strengthened partner capacity

These result areas are broadly in line with the 7 items in the “estimated results” and “main activities” boxes in the summary of the same application form.

Before each interview the assessment team prepared questions relevant to the stakeholder being interviewed, structured around the seven result areas. Records of all interviews are included in an appendix/available on request. Interviews were led by Rod Campbell and Tristan Knowles and interpreted between English and Lao by Viroth Beuypanpittoueth.

Interview summary

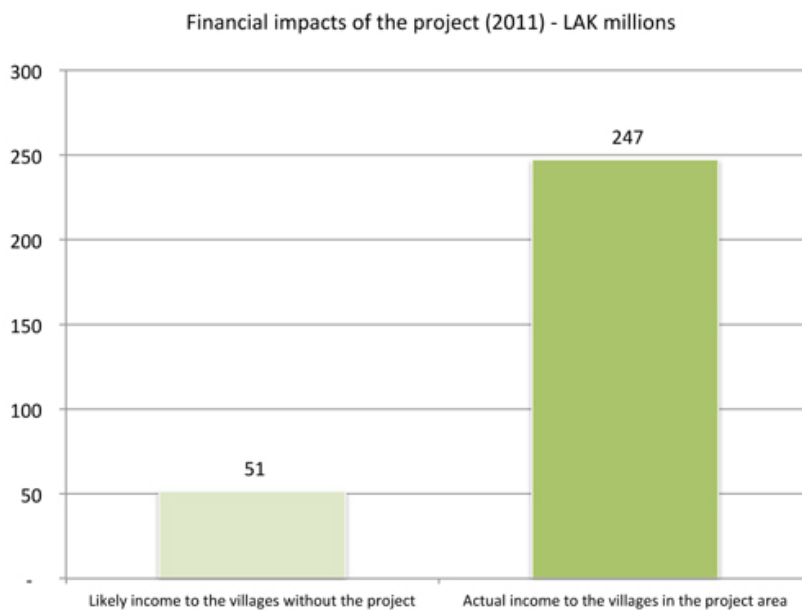
Stakeholder	Description	Date and location
WWF Laos	Project facilitator. Extensive discussions throughout assessment period.	From 15/09/11 throughout assessment period, mainly in Vientiane
Leudnilan	SME engaged in furniture production and export. Gained FSC CoC certification and purchased project handicrafts for export to European retailer Coop. Interview conducted at Vientiane office	21/09/11 at Lerdnilan's Vientiane office
Lao National Chamber of Commerce and Industry (LNCCI)	Project partner, involved in liaison between private enterprise, project and government.	Several times through assessment period in Vientiane
District Agriculture and Forestry Office (DAFO)	District level partner organization, involved in forest management planning, local administration and implementation.	22/09/11 at DAFO's rattan project office in Laksao, Bolikhamsai
Phonthong Village	Participating village with FSC accreditation and 5 years involvement in the rattan project. Representatives of harvest group, handicraft group and production group present as well as village head.	23/09/11 at village
Sopphoan village	Participating village with FSC accreditation and 6 years involvement in the rattan project. Representatives of harvest group, handicraft group and production group present as well as village	24/09/11 at village

	head.	
Thaveng village	Participating village involved in the project for 2 years. Representatives of handicraft group, village head and village head present at interview.	25/09/11 at village
Kouanchan	Participating village involved in the project for 2 years. Representatives of handicraft group, village head and village head present at interview.	26/09/11 at village
Khamkeut District tax department	District tax department, some involvement in the project's export activities.	27/09/11 at district office
Khamkeut District department of commerce and trade	District commerce and trade office, some involvement in the project's export activities	27/09/11 at district office
Provincial Agriculture and Forestry Organisation(PAFO)	Involved in forest management and planning, monitoring and export activities.	4/10/11 by phone
Provincial trade departments	Involved in export activities	4/10/11 by phone

Results

Project impacts at the village level

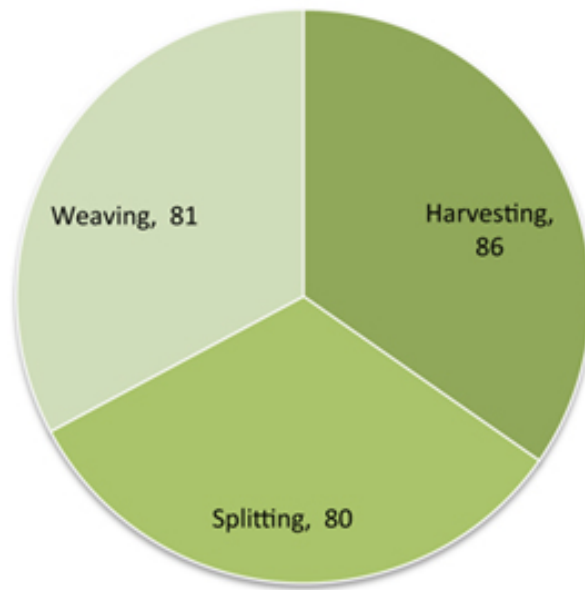
The project has had a clear impact on the rattan supply chain, with regard to sustainability and livelihoods. All interviewees support the continuation of the project due to its success in increasing incomes and improving forest management. In interviews, all villages emphasised that the project had changed their practices and these changes were generally positive. Responses in interviews were backed up by analysis of project finances, summarised in the graph below. It shows the difference the project has made to total village incomes in villages participating in the export of handicrafts to COOP, demonstrating how a market-link approach can be successful in increasing incomes and driving conservation.



(Source: modelling for Knowles (2011), based on project documents, financial records and interviews)

This analysis assumes that without the project the villages would have harvested and sold a similar quantity of rattan to traders, but at lower prices than are paid through the project's market link. It also reflects the value adding that occurred during the project's harvesting and handicraft manufacturing operations, all of which were carried out in project villages. Income increases due to the different activities are illustrated in the graph below.

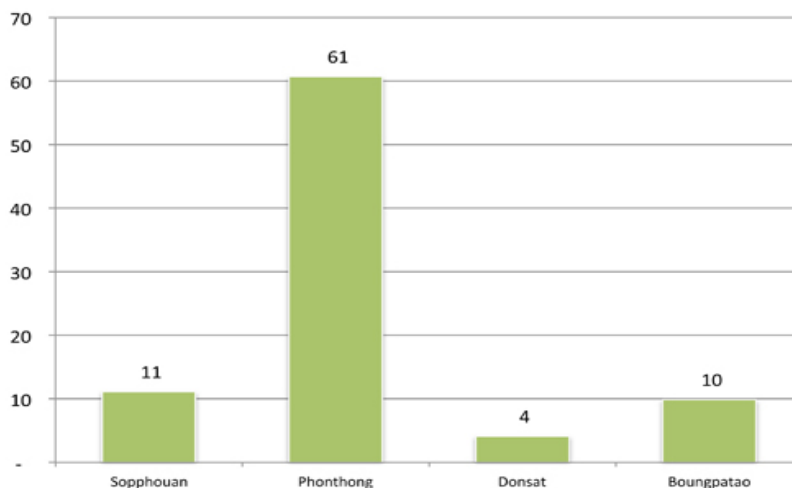
Revenue from rattan (2011) - LAK millions

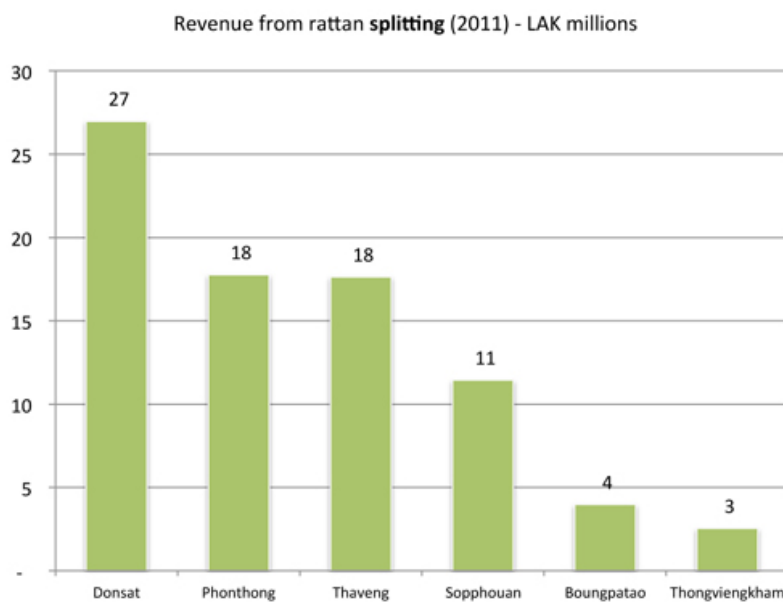
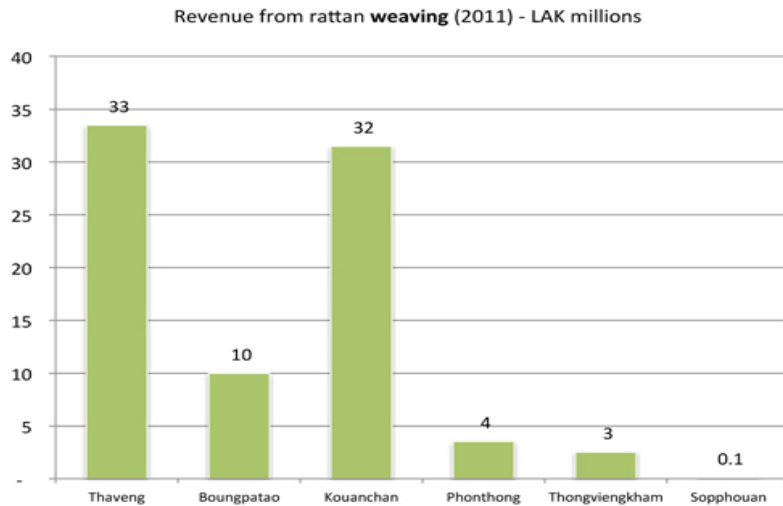


(Source: modelling for Knowles (2011), based on project documents, financial records and interviews)

There are considerable differences in the impacts it has made at different stages of the supply chain and for different stakeholders. These differences relate to the length of time involved in the project and the aspects of the project participants are involved in, such as weaving or forest management. Some of these differences are reflected in the graphs below.

Revenue from rattan **harvesting** (2011) - LAK millions





The following sections discuss the impacts of the project on different parts of the rattan supply chain. To discuss these impacts, the supply chain has been broken down as follows:

- Forest management
- Rattan harvesting and preparation
- Handicraft manufacture
- Sales and export
- Government agencies

Forest management

All villages participating in the project have a rattan forest management area that has been inventoried by project members from WWF, NAFRI, DAFO and the village forest management group. Management plans are developed from the forest inventories, specifying sustainable annual quantities for harvesting of rattan and other NTFP collection. The forest management group is responsible for ensuring that rattan is harvested in line with the management plan and for informing villages about the plan. Penalties apply for harvesting outside of the plan. There are signs in the management areas to remind users of the management practices. For a full description of the methodology of the inventory and management practices, see WWF's Forest Management Guidelines document.

Impact on DAFO and Village Forest Management Group participants

The introduction of surveying and quantitative management of rattan is a major achievement of the project. The exposure of staff from WWF, NAFRI, DAFO and village forest management groups to responsible forest management and the experience gained from the extensive surveys is highly valuable. DAFO staff said that before the project they did do some surveying of forest resources but that their practices had now improved. Past management had not been well planned or enforced and there had been no community participation in forest management. DAFO felt they had learned a lot from the project and that this knowledge had been applied to other projects and areas, notably general NTFP management, the Theun Hinboun hydropower extension project and the WWF community fishery project. DAFO and all other participants felt that the project's model for rattan management should be expanded to other villages and districts. Other districts that had been in touch with DAFO included Pakading, Vientong and Bolikan.

The capacity built in DAFO, WWF and village groups in forest management is a great achievement, one that should be strengthened and supported. Data collection and management planning could still be improved. Participation in surveying, data collection and monitoring by experienced foresters would be very valuable, as project staff still find considerable inconsistencies in data.

Despite the improvements due to the project, forest management in project areas is still financially dependent on the project, largely through contributions to the DAFO budget and monthly or per diem payments made to village participants. The achievements in improved forest management so far are important, but will only become sustainable financially and result in long-term sustainable practices when they translate into economic benefits at the local level. The accompanying report *Financial modeling and analysis of FSC certified rattan in Lao PDR* (Knowles 2011) explores how some of these benefits can be realised and local costs covered. Some of these local benefits are beginning to be realised in some participating villages.

Sopphuoan and Phonthong

The project has been operating in the villages of Sopphuoan and Phonthong since 2006 and 2007 respectively. In both villages the impacts of the project on forest management and livelihoods are apparent from interviews with participants and observations around the villages. At the beginning of the project the village groups "didn't know anything about

sustainable management” (Sopphuoan) and “people would just go out and harvest as much as they wanted” (Phonthong). As a result of project support and training, effective management practices are now in place. The harvesting group ensure that only the quota is harvested and keep records about how much is harvested and from where it is taken. Village forest management groups of 6 people (Sopphuoan) are involved in regular monitoring and setting of quotas. Fines of 500,000 kip for unauthorised exist in both villages and several have been issued and enforced in Sopphuoan.

These improved practices have enabled both villages to obtain Forestry Stewardship Council (FSC) certification for sustainable forest management. Along with two other participating villages, Donsat and Bounpatao (not visited for this report), they are the world’s first source for FSC certified rattan. Both villages are rightly proud of this achievement. FSC certification is one of the key result areas for EC funding and is discussed more extensively in Knowles (2011). The real achievement, however, is not in the FSC funding per se, but in the impacts on local practices and livelihoods. There are several indicators of the definite impacts the project has had on livelihoods in these two villages:

- **Rattan nurseries.** In Sopphuoan we visited one of several rattan nurseries. Rattan nurseries are used to grow seedlings that can be sown as enrichment plantings in forest areas, or used in plantations of edible rattan shoots. These nurseries were initially a part of the project. When co-author Rod Campbell visited Sopphuoan in 2009 for research on Campbell (2009) the only nursery was being driven by the project with only limited enthusiasm from village participants. Half the area of the small nursery had fallen into disrepair and was not being used productively. Two years later fieldwork conducted for this report showed that there are now several rattan nurseries that are successfully privately managed. The project is no longer actively involved in the management of the nurseries, nor does it directly fund their management (the project is however, an important buyer of seedlings for use in other project villages). Interviewees in Sopphuoan say they have 50,000 seedlings in nurseries which are sold for 2,700 kip each. They are sold to people in the village who are establishing plantations for edible rattan shoots, some are planted in the forest as enrichment planting of rattan stocks and some are sold to the project which provides them to other participating villages. The successful takeover of rattan shoot nurseries by villagers shows that the project has strengthened livelihoods, increased incomes and improved the start of the rattan supply chain.
- **Enrichment planting.** In Phonthong we visited areas of their rattan management area that had rattan seedlings planted in the forest. This has been guided by the project, but now also occurs independently of the project, with seedlings from the village nurseries. This investment by the village in the rattan resource base is a strong sign of the project’s impact on livelihoods through forest management and the early stages of the rattan supply chain.
- **Plantations of rattan for edible shoots.** Rattan shoots are an important and popular local food. When co-author Rod Campbell visited Sopphuoan in 2009 for research on (Campbell 2009 rattan shoot) some edible shoot plantations had been

established, to save villagers having to harvest wild rattan for food and to provide regular income from shoot sales. Despite that report's finding that the plantations could be profitable, support in the village seemed uncertain. Following our interview for this report, we visited plantations and found they had expanded considerably, with a newly established area being tended at the time of our visit. Other plantations can be seen on the road to Phonthong. These plantations provide additional income and food security for villages, while reducing pressure on wild rattan stocks. Their adoption by villages independently of the project is another sign of its impact on livelihoods and forest management.

- **Improved forest and increased numbers of animals.** In Sopphuoan one interviewee commented that forest management had increased animal numbers in the forest and rattan stocks has increased. The comment about animal numbers was unprompted, and rattan stocks were clearly seen as a future source of income for the villages.

The importance of these local economic benefits from forest management, as seen in Phonthong and Sopphuoanphoan should not be understated. This is a fundamental change in the incentive structure of the local economy. Formerly no management system existed and it was in the interests of individuals and the village to over-exploit their forest resources. The existence of the management system and the realisation of some economic benefits from it provides incentive for more sustainable management. To create incentives for sustainable resource management and community benefits while deterring overexploitation for short-term gain is a challenge for natural resource managers in all countries, rich and poor. To be achieving such results in remote areas of the Lao PDR is a tribute to the whole project.

Thaveng and Kouanchan

Two other villages we visited, Thaveng and Kouanchan, have only been involved with the project since 2009. In these villages, the project's impacts on forest management are less clear. Inventories have been carried out and forest management groups established. Villagers in the forest management group have benefited from this through training in sustainable forest management. The continuation of monitoring and forest management will however, depend on project participation for the near term. In Thaveng and Kouanchan, enthusiasm for forest management and the project seemed more linked to the income from handicraft manufacture rather than the benefits of improved forest management relating to sustainable harvesting and environmental benefits.

This is not surprising as neither Thaveng nor Kouanchan harvests any rattan from management areas because depleted stocks are still recovering. Harvesting is not expected for several years. While interview participants thought forest management was worthwhile, reasons given related to climate change, impact on rainfall or management of flooding, which the village head had learned about on television, rather than benefits of improved forest management as are being realised in Sopphuoan and Phonthong. This highlights the time taken to engage a community in forest management and for the benefits of forest management to provide incentive for sustainable use. This also suggests the project could

communicate better with villages and promote exchange of information between participating villages.

Interviewees in both Kouanchan and Thaveng had little understanding of FSC certification. Neither had considered enrichment planting of their forest areas, establishing rattan shoot plantations or nurseries. No interviewees had visited the forest management areas of Phonthong or Sopphuoan. We believe such visits would be valuable. After our visit the project's Lao country manager was organising a meeting of village heads, which could facilitate communication between the villages and improve understanding of forest management.

After our interview in Thaveng, we visited the management area, shown to us by Mr Ondo, one of the management group. He had not been present at the interview but took obvious pride in showing us the area, its signage and rattan reserves. While forest management may be in its early stages in these two villages, Mr Ondo's enthusiasm gives cause for optimism in the project's next phase.

The project's impact on forest management has been a great achievement, particularly in the longer-participating villages. To ensure ongoing forest management, the project needs to ensure that local economic incentives are being realised across all participating villages. Until these incentives are provided, the subsidy of the project and long term commitment from understanding rattan buyers will be essential. The extent of this need under different scenarios is explored in the accompanying report, *Financial modeling and analysis of FSC certified rattan in Lao PDR* (Knowles 2011).

Rattan harvesting and preparation

As mentioned above, Sopphuoan, Phonthong and the two other FSC accredited villages, Bounpathao and Donsat, have begun harvesting rattan from their forest management areas, providing income, long-term livelihood support and incentive for sustainable forest management. This year these villages harvested nearly 40,000 canes of rattan, worth some 86 million kip. Phonthong has been the main village where most canes have been harvested.

As mentioned above, quotas based on sustainable use of the inventoried rattan resource have changed forest management practices in these villages. Furthermore, the project has carried out considerable training to improve the physical practices of rattan harvesting, transport and storage.

Sopphuoan and Phonthong

Participants in both villages had received training on harvesting methods. The training helped ensure canes are not damaged, are dried and stored in good condition to help maintain their value and reduce waste. Other techniques encouraged regrowth and the health of the rattan clumps. Training included:

- Cutting canes approximately 50cm from the ground, to improve quality and maximise the usable length of the cane.
- Not cutting down trees to get at rattan canes.
- Preventing damage to canes by winding them and carrying canes rather than dragging them along the ground.
- Cutting canes to a standard 5 meter length, but also making use of shorter offcuts.
- Sun drying and cleaner production techniques to use less chemicals
- Packing and preparation - 30 canes are put together and tagged specifying harvest location and date. Records kept with village management team.
- storing in the storehouse for transparency and improved storage conditions

Interviewees emphasised the differences in harvesting practices as a result of the training. In the past harvesting had been less organised, with no consideration for regrowth, reducing waste or protecting the value of canes. Harvesting had usually occurred at the instigation of middle-men, who would stay a few days in villages until their trucks were loaded up with raw canes. Middle-men no longer come to the town as the villages receive a better price for the rattan managed through the project and that there are stiff penalties of 500,000 kip for unauthorised harvesting.

Participants in Phonthong and Sopphuoan were keen to emphasise that one of the benefits of the project was that anyone from the village could participate in harvesting. Poorer households in particular benefited from being able to participate in the harvest:

Because anyone can be involved in the project it doesn't just benefit the rich people, there is a real sharing of benefits. (Phonthong)

Every household sends someone to participate, particularly in harvesting, so they can share in the benefits of the programme. (Sopphuoan)

This point was raised by participants in both villages, unprompted by questions from the assessment team. This contribution to equity and improving the livelihood base of the poorest households is another major achievement of the project, one that eludes many development programmes.

Thaveng and Kouanchan

As neither Thaveng nor Kouanchan have begun to harvest rattan from their management areas, they had little to say about harvesting practices. These villages had been involved in handicraft manufacturing using rattan harvested from the FSC accredited villages.

Thaveng and Kouanchan harvest NTFPs from forest areas outside of the project management areas for village use. Kouanchan claim to have harvestable rattan in their forests but that no-one bothers to harvest this as it is too far away and difficult to access. It will be interesting to see if this area is harvested, or incorporated into the management of the area when harvesting of rattan becomes viable for the village.

Handicraft manufacture

The project's achievements in capacity building and handicraft manufacturing should not be understated. To understand these achievements, it is important to first examine how the project's activities deviated from their original plan.

The project had undertaken to link local suppliers with an international retailer. An arrangement was made for a Lao company to produce and send a shipping container of handmade baskets to Swiss retailer COOP in early 2011. The project planned to work with a local small-medium sized rattan manufacturing enterprise (SME) to manufacture these baskets, using rattan harvested from the project's management areas.

The engagement of a suitable rattan-focused SME was to be facilitated by project partner, the Lao National Chamber of Commerce and Industry (LNCCI). LNCCI through its provincial networks found SMEs involved in the rattan trade and invited them to an information session in mid 2009.

The first business to get involved with the project was rattan furniture and handicraft manufacturer, Dan Lao. From June 2010 the project worked with Dan Lao on production planning, design and CoC certification. Dan Lao planned to produce the order in their factory in Vientiane Province.

However, Dan Lao discontinued their involvement in the project in December 2010, feeling unable to fulfill the order. Factors involved in their decision included:

- Uncertainty around profitability and future orders.
- Labour uncertainty – more workers would have been required to fill the order. The company has difficulty taking on workers for short-term engagements. This has strained their relations with local people in the past. As future orders are uncertain, Dan Lao felt unable to offer long-term employment to local people.
- Pressure from the project to deliver by early 2011. Project staff felt that with more patience Dan Lao might have stayed involved. Rather than working to deadlines, a more flexible approach may have helped.

With the departure of Dan Lao, the LNCCI contacted rattan processing firms again and also bamboo and export-focused companies. Another meeting was held in December 2010. The only company to express interest was Leudnilan, a small, Vientiane-based company mainly focused on bamboo furniture.

Leudnilan were enthusiastic, but a less-than-ideal partner for the project. They had little experience working with rattan, other than as a component of bamboo furniture. Their capacity to produce even bamboo furniture is limited, with only a small factory with around 5 people located some distance from the capital in Vientiane Province.

As Leudnilan were unable to produce the order in their factory, the project and Leudnilan decided to use the handicraft groups in project villages to produce the products for the final order. This was a risky undertaking. Villages had established handicraft groups as part of the project, but the purpose of these groups was to improve local capacity, show the potential of rattan for the region, foster communication between villages and factories and to help participants better understand the rattan supply chain. Their purpose was not to produce export-quality goods in the short to medium term. Members of these groups had

undergone some training and some had gone on project-sponsored study tours to rattan factories in other provinces, but to fulfill the requirements of the COOP order, they required more training and coordination.

Leudnilan were largely unable to carry out this training and coordination. They lacked experience working with rural villagers, as is not surprising for a small Vientiane-based company. Difficulties arose between Leudnilan and the villages in terms of personal relationships, communications and coordination. Leudnilan were reluctant to assist with villages' requirements such as up-front payment for work done. These difficulties resulted in a reduction in villages participating, from seven villages (Sopphouan, Phonthong, Donsad, Pongpatao, Kouanchan, Thaveng, Thongviengkham) down to three (Thaveng, Kouanchan, and Pongpatao). In Thaveng, interviewees recounted that 75 people had wanted to be involved initially, but only 21 persisted. Respondents claimed that the others had not been able to see how they would benefit from the project.

Uneven participation in handicraft production reflects more than just Leudnilan's inexperience with village production. Other factors include:

- The project's relationship with the village and its leaders.
- Village involvement with forest management.
- Capacity of the village with handicrafts. For example, Kouanchan had participated in another handicraft project so were known as a village with experienced and keen workers.
- Other employment opportunities – some villages participate in other projects such as hydropower and unexploded ordinance (UXO) removal affecting how many people can/want to participate in handicrafts.

Although unconventional and problematic, the approach taken by the project in handicraft manufacturing has had great effect on participants. Considerable capacity has been built in the participating villages. In Phonthong, interviewees said the village had only ever sold handicrafts within the village never on wider markets. Sopphouan similarly had little experience with handicrafts. The increase in capacity from villagers who may never have sold products outside their villages, to exporting to high-value markets is quite remarkable.

The involvement of the villages in the production of the export order has increased their incomes, as shown in the graphs above. All participants interviewed were enthusiastic about the handicraft manufacturing aspect of the project, due to this direct contribution to incomes. In Thaveng, participants had earned over 30 million kip for the handicraft group – around 1.5 million per household – in 1.5 months. This would have taken two years without the project. In Kouanchan members of the handicraft group felt that:

Through the handicraft group they've obtained knowledge and have increased their income. They know that their district is to make handicrafts and sell them overseas. They're proud of the local products and showing that they have skills and products to sell on foreign markets.

Due to these successes, interviewees said that many more are keen to participate in the future.

The increases in incomes and increases in capacity are fine achievements from a project perspective. That incomes are increasing should assure donors that economic benefits are being realised in the target areas. However, it is important to realise that these benefits are reliant on the project's link to European markets. The project provided not only training, but a guaranteed market for all finished products. As the Thaveng interviewees put it:

Before [the project] handicrafts were difficult to sell in the local market, [now] they sell easily to the project and increase their incomes. (Thaveng)

To ensure these gains are more than just a windfall during the course of the project, it will be important for handicraft groups to have strong ties with SMEs, exporters and wider markets.

While the project's success in building a rattan SME out of the inexperienced Leudnilan and village handicraft groups is a great result, the project being so involved in production demonstrates that there is:

- a major lack of capacity in the SME rattan processing sector in Lao and/or
- difficulty for the project and LNCCI in engaging the industry

Discussion with the LNCCI's representative to the project, Vilasack Xayaphet, and other staff, suggests that both of these factors are important.

Mr Xayaphet suggested that the number of rattan processing SMEs known to the LNCCI had declined in recent years, with estimates summarised in the table below:

Province	Formerly	Currently
Vientiane	Many	4
Bolikhamsay	4-5	2
Khammouan	2	0
Champasak	1	1

He suggested that the many closures were due to reduced availability of rattan, children not being interested in taking over family rattan businesses and lack of skills for processing.

The decline in the local rattan industry and communication difficulties present problems and opportunities for the project and the growth of sustainable rattan in Lao.

- It is difficult to use existing firms to access local markets and networks
- Limited chances to work with experienced rattan processors and people with long industry experience

However:

- The re-emergence of reliable supplies of quality rattan could drive a resurgence of the industry
- The building of local capacity in handicrafts and proximity to supplies and export facilities in Vietnam could drive local industry development in Khamkeut
- Reliability, quality and FSC certification of the rattan supply could provide a niche for Leudnilan and other companies to fill.

These difficulties resulted in the inexperienced Leudnilan's joining the project, and requiring enormous support. The company acknowledges, and is grateful for, the large amount of training and assistance they received in

- business planning,
- production techniques,
- production management,
- product development,
- How to work with farmers and in rural areas

For Leudnilan, participation in the project has been "very worthwhile and has improved the company's standards overall." They have applied some of the cleaner production training to their work with bamboo and improved their understanding of exporting, to the point where they feel confident they could undertake future work without project assistance. While the profit they made on the first shipment was minimal (estimated by Knowles (2011) at approximately 2,500 kip per set of baskets, pre-tax) they were enthusiastic about involvement with the project, the impact it had had on their business and the Khamkeut villages.

An interesting development is the departure of the rattan project's Lao country manager Mr Bouaphet to start a company to work in this same market. Mr Bouaphet hopes to use his now-considerable experience working with rattan management, village groups, handicraft manufacture and export proceedings to create a profitable company based on sustainable rattan production. He is applying for FSC chain of custody accreditation at the time of writing this report, with the assistance of the project.

The emergence of another company would reduce the likelihood of problems associated with relying on one firm – as encountered when Dan Lao cancelled its involvement in the project. However, Mr Bouaphet's intimate knowledge of project staff and other stakeholders should not be used to subsidise his company or prevent the entry of other firms with the necessary standards. This should be investigated in future assessments of the project.

Taking on the task of producing export quality goods with an inexperienced partner and village handicraft groups showed a great deal of chutzpah from the project. Successfully completing the order is a tribute to the tenacity and ability of the project staff. The "Lessons Learned" report on this part of the project is essential in understanding this episode and should be read by anyone interested in engagement of local industry in low-income countries.

Sales and export

In mid July 2011, the project exported a container of hand-woven rattan baskets from Lao PDR, through Vietnam. The products were bought by Swiss retailer Coop, who had expressed interest in FSC rattan and agreed to buy sets of rattan baskets produced through the project. The products were harvested from the project's FSC certified management areas, made by local handicraft groups and exported through the FSC Chain of Custody (CoC) certified local small-medium enterprise (SME), Leudnilan. At the time of export and printing of final retail tags however, the CoC FSC certification was still in the process of being obtained and so the final retail tags do not use the FSC logo. Future orders will be able to make use of the FSC label.

This shipment was no minor feat. It incorporated all the achievements listed above in forest management, harvesting and processing, handicraft manufacture to achieve a world-first – the export of sustainably managed and produced rattan products. This major achievement did not come easily. In addition to the difficulties outlined above, Leudnilan also had little export experience and, as was to be expected, no experience of certification and chain of custody management. It was their first time exporting to European markets, their first time working with Bolikhamsai Province and Khamkeut district regulations.

In essence, the project used Leudnilan as a shell company and had to run the administration and management of the production and export itself. Leudnilan received considerable help with:

- export regulation
- liason with district, provincial and other officials
- CoC and FSC regulation and certification.

Considerable capacity has been built within Leudnilan and project staff relating to export procedures and regulations. The project's engagement with authorities at different levels has also had some impact on those bodies and legislation, as outlined below.

(Note: Project partner LNCCI is developing a manual for rattan SMEs based on these experiences.)

Impact on government agencies and regulations

The project enjoys a good relationship with many government agencies. Interviewed for this assessment, were:

- Provincial Agriculture and Forestry Office (PAFO)
- Provincial department of commerce and trade
- Khamkeut district department of commerce and trade
- Khamkeut district taxation office
- District Agriculture and Forestry Office (DAFO)

All agencies expressed goodwill and support for the project, and a good understanding of the projects activities, particularly in regard to village activities.

The project has had an impact on some regulations. The Bolikhamsai province department of commerce and trade said that taxation of rattan had changed from several local and provincial taxes to one tax payable only by the purchasing company. The interviewee felt this was an improvement on the previous arrangements which involved village and district taxes, which, given other comments on the haphazard nature of rattan harvesting, is likely were not often paid.

Complication of regulations was a major theme from all these departments. All were keen to reduce the red tape involved in exports of sustainably managed rattan. Currently there are 16 documents required for export of rattan products, which these officials are keen to reduce. Provincial level meetings are being held to try and reduce these requirements, with the central government also interested in assisting. Reduction of red tape around furniture, handicrafts and other exports has been a call of many reports on Laos, see for example (GDS, 2005)

Other interesting points raised by officials included:

- The project had improved understanding of certification and standards
- Communications were often weak between project participants (particularly Leudnilan) and government departments, and also between government departments.
- A suggestion that the project should have less meetings with government, which given the number of people who have to attend and per diems paid, could enable the project to spend more money at the village level (Bolikhamsai province department of commerce and trade).

Conclusion

The Sustainable Rattan Project has had a major impact on participants in the rattan supply chain in the Lao PDR. The project's engagement of local suppliers and international markets and pursuit of certification programmes has been important in these impacts. These impacts have improved the sustainability of practices in participating areas and increased incomes in participating villages. In this report we have assessed these impacts under the headings of forest management, rattan harvesting, handicraft production, sales and export and impact on government agencies and regulations:

Forest management:

Participating villages now have harvesting plans based on inventories of their management areas. This has introduced concepts of sustainable forest management to villages and district authorities – an important achievement. Translating these improved management practices into local economic benefits is necessary to provide incentives for participants to continue with this work beyond the life of the project. This remains a challenge for most participating villages, however some promising signs are showing in Sopphuoan and Phonhong where forest management groups and private interests are taking responsibility for nurseries, shoot plantations, enrichment plantings and other forest management activities. Improved numbers of animals and other non-timber forest products were also reported. The potential of sustainably managed rattan to improve village income is appreciated by project participants.

Harvesting:

The project has conducted training to improve the sustainability of harvesting practices and improve the amount of revenue earned from rattan resources and retained by the villages. Village harvest groups are now responsible for carrying out rattan harvests according to plans, rather than at the behest of traders and middle men. This results in income being retained by the village and also in a more equitable distribution of income, as all households are able to participate in harvesting activities.

Handicraft manufacture:

After the withdrawal from the project of a rattan processing SME, the project worked with a new partner to manufacture rattan baskets for export. Due to the low capacity of this new partner, the project worked with village handicraft groups to produce these baskets. This led to large efforts at capacity building in villages and improved income for participants. While ultimately successful, this strategy caused considerable difficulty for project partners and highlighted the low capacity of the Lao rattan SME sector and the project's difficulty in engaging with the sector. The future of the sector is interesting, as the project's partner seems keen to continue, while the WWF Lao Rattan manager has left the project and is starting a private company to work in this area.

Sales and export:

Similarly, the project was more heavily involved in sales and export proceedings due to the departure of the more experienced SME partner. Considerable capacity has been built in the project's partner and staff regarding export procedures.

Government agencies and regulations:

The project has a good relationship with government agencies at district, provincial and national levels and has had some impact on simplifying regulations relating to rattan management and export.

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