



Australian Government

**Australian Centre for
International Agricultural Research**



**ENHANCING KEY ELEMENTS
OF THE VALUE CHAIN
FOR PLANTATION
GROWN WOOD IN LAO PDR**

**The evolution of teak grower groups in Luang
Prabang, Lao PDR:
An action research approach**

**Final Report for
Grower Group subcomponent (Objective 1.3A)
FST/2010/012**

Prepared by the **Action Research Team**

Mr Stuart Ling (Grower Groups Advisor)

Dr Lamphoune Xayavongsa (National University of Lao PDR, Vientiane)

Mr Sychan Chandiphit (Upland Agriculture Research Centre, Luang Prabang)

Ms Sengkham Phonchaluen (Souphanouvong University, Luang Prabang)

November, 2016

Contents

Contents	2
List of Figures	3
List of Tables	3
Acronyms	3
1. Introduction	4
1.1 Overview of VALTIP2 and the grower groups objective.....	4
1.2 Structure of this report.....	4
2. Research context.....	5
2.1 Rationale for grower groups	5
2.2 Experiences of grower groups in South-east Asia.....	6
2.3 Teak in Luang Prabang.....	7
3. Methodology.....	9
3.1 Nature of Action Research.....	9
3.2 Research Process.....	10
4. Results	12
4.1 Baseline: collective marketing under threat - May 2013.	12
4.2 Groups struggling – November 2013.	14
4.3 Recommendation to establish grower group enterprises.	18
4.4 Enterprises approved and operational – May 2014 to September, 2016.....	20
4.5 End line: new developments favouring enterprises - September 2016.....	23
4.6 Are there increased returns from establishing the enterprises?	25
5. Discussion	26
6. Conclusions	31
7. Literature Cited	34
Appendix – Team Profile	37

List of Figures

Figure 1: The AR cycle (Source: Coghlan and Brannick, 2001)	9
Figure 2: Revised Group structure incorporating the enterprises.	18
Figure 3: Existing and improved teak value chains in Luang Prabang (Ling et al. 2014:36). ...	19

List of Tables

Table 1: Characteristics of study villages at the beginning of the action research	10
Table 2: Grower group action plan, Kok Ngiu, Cycle 1, 30/5/2013	13
Table 3: Extent to which Group Member meetings were held between November 2013 and September 2016.....	22
Table 4: Contribution of members to the grower group in Xianglom and Kok Ngiu villages .	23

Acronyms

ACIAR	Australian Centre for International Agricultural Research
AR	Action Research
BAFCO	Burapha Agroforestry Company
CBCF	Community based commercial forestry
DAEC	Department of Agricultural Extension and Co-operatives
FAO	Food and Agriculture Organisation
FSC	Forest Stewardship Council
KHJL	<i>Koperasi Hutan Jaya Lestari</i> (an Indonesian Teak Growers Cooperative)
LAK	Lao Kip (there are about 8,000 LAK to one USD)
LPTP	Luang Prabang Teak Project
PAFO	Provincial Agriculture and Forestry Office
RAFT	Responsible Asia Forestry and Trade Platform
TFT	The Forest Trust
VALTIP2	Enhancing Value Chains for Plantation Grown Wood in Lao PDR, Phase 2

1. Introduction

1.1 Overview of VALTIP2 and the grower groups objective

The Australian Council for International Agricultural Research (ACIAR) has supporting a four year project (2012-2016) in Lao PDR entitled “Enhancing Value Chains for Plantation Grown Wood in Lao PDR” (VALTIP2). The overall goal of VALTIP2, as stated in the project proposal, was to:

Improve livelihoods for farmers and processing workers and the international competitiveness of Lao PDR wood industries through improved efficiency of the planted wood value chain (ACIAR, 2010:9).

The Grower Group subcomponent of this project (Objective 1.3A) aims to:

Identify and test what forms of grower organisation are feasible and sustainable, and will improve returns to smallholders, and how these can be fostered (ACIAR, 2010:9).

This is the research question. The project proposal specified that an Action Research (AR) approach was to be used, and that the research should focus on teak grower groups in Luang Prabang, which had previously been established and supported by one of ACIAR’s project partners, the Luang Prabang Teak Project (LPTP).

In March 2014, the AR team issued its first report based on two rounds of AR with three teak grower groups in Luang Prabang province, and which recommended pathways for development of these groups. This final report (September, 2016), which coincides with the end of the project, presents the results of four further rounds of AR which trialled these recommendations with these groups in conjunction with LPTP. Where relevant, it also refers to the findings of the other subcomponents of Objective 1 of VALTIP 2, being 1.1 (Teak Inventory), 1.2 (Legality and Transaction Costs) and 1.3B (Certification).

1.2 Structure of this report

The remainder of this report is structured as follows. Section 2 reviews the research context including the experiences of grower groups in other parts of South-east Asia and the background of the LPTP grower groups in Luang Prabang. Section 3 outlines the methodology used by the AR team. Section 4 presents the findings of the AR over the four year period, based on a series of field trip reports and secondary sources. Section 5 discusses these results in accordance with the research question, while Section 6 draws conclusions and their implications.

2. Research context

2.1 Rationale for grower groups

The development of grower groups, cooperatives and associations has been promoted by governments and development programs worldwide as a means to generate income and improve the livelihoods of smallholders. The Food and Agriculture Organisation (1994:1) writes:

By working in groups, rather than as individuals, the rural poor are able to combine and make best use of their skills and resources. They can exchange views and ideas and choose the best options. Working together makes work lighter and easier. Most important of all, a group has more bargaining power than an individual.

The FAO recommends that four basic principles be considered in group formation (Box 1).

Box 1: Four basic principles in rural self-help group formation

1. The group should be small

The ideal number of members is between eight and 15. In a small group, all members have the chance to speak and to contribute their energy and ideas to group development. Small groups are less likely to be divided by arguments or dominated by a minority.

2. The groups should be homogeneous

Members should live under similar economic conditions and have close social affinity. Homogeneity reduces conflict within the group- members with similar backgrounds are more likely to trust each other and accept joint liability for their activities.

3. The group should be formed around income-generating activities

Income-generating activities are crucial to group development because they produce assets that help build self-reliance.

4. Groups should be voluntary and democratic

Members should decide who can join their group, who will lead them, what rules they will follow, and what activities they will undertake. Decisions should be taken by consensus or a majority vote.

Source: FAO (1994:38)

In contrast to groups, cooperatives are usually larger and more structured, and may be affiliated into associations. They may also take on a role in the value chain between companies and farmers.

Besides their economic impacts, grower groups are seen as an effective mechanism to build social capital and to access the marginalised members of a community (Race and Sumarit, 2015). The VALTIP2 project document anticipated that social impacts, such as enhanced community cohesion, would be generated from the greater collaboration of smallholders in groups (ACIAR, 2012:22).

2.2 Experiences of grower groups in South-east Asia

In South-east Asia, while there are many examples of successful farmer organisations based on agricultural commodities such as rice, coffee and vegetables, examples of successful tree grower organisations are less common. Unlike short-term agriculture crops which provide income on a seasonal basis, farmers are able to time tree harvesting according to their income needs. As well as diversifying their incomes, farmers in Thailand also plant trees as a means to utilize unproductive land and spread their labour availability (Boulay, Tacconi and Kanowski, 2012). Since trees are regarded as a low input commodity that provides only a secondary income, it is difficult to interest farmers in forming groups. Instead, farmers prefer outgrower arrangements which provide them with flexibility, and the major pulp and paper companies in Thailand and Vietnam rely on such agreements with thousands of smallholders to provide their timber requirements.

In Indonesia, farmers plant trees as a household saving strategy. Obidzinski, Dermawan, Andrianto, Komarudin, and Hernawan (2014:4) observe that:

One of the key features of community forest management in Java is the system called “tebang butuh”, where trees are felled only when families are in immediate need of cash. This practice means that trees are not harvested regularly and there is no predictable monthly or annual volume of production. Timber farmers usually own small parcels of land per family (i.e. less than 1 ha.) meaning that only small volumes of timber are harvested. The land is privately owned, decision-making is autonomous in nature and timber is not always the most important source of family income.

In Gunungkedal, Central Java, where ACIAR has worked for many years, the incomes of smallholder teak growers are constrained by a lack of capital, high transaction costs, unfavourable government policies and limited access to market information (Rohadhi, et al. 2012). To overcome these limitations, Indonesia has encouraged community based commercial forestry (CBCF) in recent years as a “means of achieving the twin goals of alleviating rural poverty and building a sustainable forest industry.” (Race and Wettenhall, 2016:6). One oft-quoted example of a successful CBCF organisation is *Koperasi Hutan Jaya Lestari*, or the KHJL cooperative (Barr, 2006). Established in 2003 in Sulawesi Tenggara province with an initial membership of about 300, KHJL was nurtured and provided with Forest Stewardship Council (FSC) certification from The Forest Trust (TFT). Its success has been attributed to the transparent grading rules based on volume, a price premium due to their strategic location close to teak processing facilities and an industry advance that enables it to pay 50% of the value of the wood up front to the members (Robin Barr, email communication, 19th July, 2013). However, in a candid 2015 report entitled “How Indonesia’s best known forest Cooperative lost its way” Elson and Unggul (2016) describe how KHJL had not sold FSC timber since 2012, forcing it to relinquish its FSC certificate in early 2015 for financial reasons. They attribute the cooperative’s decline to several factors, including that it

had become donor driven and had lost its business focus, and that it was undercut by a large state-owned operator (Perum Perhutani) that had also received FSC certification.

This situation is not uncommon. In their extensive review covering ten years of CBCF in Indonesia, Race and Wettenhall (2016:21) have documented the challenges of sustaining forestry groups once they have been established.

While many CBCF initiatives started off with the establishment and management of farmer groups or cooperatives, it has proven difficult to sustain effective, representative farmer organisations. The needs-based harvesting system tends to encourage individualism. Groups often consist of the better-off members in the community, who own larger pieces of land and can afford the risk to invest in new practices. Women have a limited role in the forestry groups. Financial service providers fail to support farmer groups or cooperatives in CBCF, with the long term return on investment in tree production acting as a serious barrier.

Similar sentiments have been expressed by Midgley, Stevens and Arnold (2016:21):

Despite the success of the efficient and sophisticated European grower-group models and the example of Forest User Groups in Nepal, there are few plantation-based cooperatives or smallholder groups which have functioned effectively without long-term and significant outside support. Smallholders in Asia are all different and all households have different needs at different times and unquestioning reliance upon groups may be unwise

2.3 Teak in Luang Prabang

Teak was first planted in Luang Prabang in the 1950's, with the area increasing rapidly in the 1990's as revised government policies provided security of land tenure and encouraged the planting of teak as an alternative to shifting cultivation (Newby, Cramb, Sakonphet and McNamara 2012¹, Midgley, Blyth, Mounlamai, Midgley, & Brown, 2007). An inventory supported by this Project (Objective 1/1) put the area of teak in Luang Prabang at about 15,000 hectares (Boer and Seneanachak, 2016), with the majority of stands in small size classes due to the tendency of farmers to thin from above. Individual holdings are reported to range from over 700 hectares down to a few trees (Ling et al., 2014).

Like their Indonesian counterparts, growers in Luang Prabang regard their teak trees as either a long-term or speculative investment (such as a conduit to claim land title or add value to a future land sale), rather than something to be managed for regular income (Midgley et al., 2007). . These non-economic objectives suggest that the creation of feasible and sustainable

¹ The paper of Newby et al. was supported by ACIAR Project FST/2004/057 "Enhancing on-farm incomes through improved silvicultural management of teak and paper mulberry plantations in Luang Prabang Province of Lao PDR."

groups will be challenging, given the assertion by FAO (1994) that groups should be formed around income generating activities (Principle 3 in Box 1).

Growers traditionally sell their wood through middlemen, who must deal with numerous institutional constraints, including opaque and contradictory legal frameworks and high transaction costs for administrative processes (Smith, Ling and Boer 2016; Said, 2016). These risks are exacerbated for middlemen by the additional time needed to purchase small quantities of small diameter logs from individual farmers, which leads to low prices (Midgley et al. 2007). While middlemen have often been reviled for taking advantage of smallholders, Anttila (2016), concludes that they are preferred by Luang Prabang teak growers who lack the time and motivation to undertake these complex processes: similar conclusions were drawn by Perdana and Roshetko (2015) in Indonesia.

Since 2008, the teak sector in Luang Prabang has been supported by the Luang Prabang Teak Program (LPTP), which is in turn supported by The Forest Trust (TFT). To boost grower incomes, LPTP encouraged the formation of grower groups that would access higher value certified markets. The Forest Stewardship Council (FSC) certification model was initially chosen, since it was already being used by the Lao government under a trial program to certify native forest harvesting. There are thus some parallels here with the KHJL example cited earlier.

As would be expected, LPTP had focussed its initial efforts on developing growers groups both in villages where there were large number of teak owners (and so potential members) and in locations with suitable market access. At the start of the AR four villages, all within 15 kilometres of the provincial capital, had been FSC certified. To encourage the sustainability of the groups, LPTP had provided group members with free plantation ownership certificates which exempted them from paying land tax.

Overlaying the research in Luang Prabang is rapid socio-economic development in Lao PDR in recent years, which has led to rising inequality and an increased reliance on off-farm income (Rigg, Salamanca and Thompson, 2016; Menon and Warr, 2016). Newby et al. (2012:19) point out by enabling the accumulation of land, teak planting has contributed to agrarian differentiation amongst traditionally close-knit farming communities in Luang Prabang, and led to a diversity of teak holdings:

A small group of better-off farmers and urban-based outsiders [absentee landlords] have captured the majority of the benefits, while those with greatest dependence on shifting cultivation are actually made worse off through declining access to land.

As the FAO notes, groups work best when farmers come from similar economic backgrounds, as they are more likely to trust each other and accept joint liability for their activities (FAO Principle 2 in Box 1). Newby et al. conclude by suggesting that technical processes, such as the formation and maintenance of grower groups, need to be seen in the context of wider

processes of agrarian change and social differentiation to appreciate the resultant impacts on grower livelihoods.

3. Methodology

3.1 Nature of Action Research

As its name suggests, action research combines action with research. Fisher (2006:2), describes it as:

A process in which a group of people with a shared issue of concern collaboratively, systematically and deliberately plan, implement and evaluate actions. Action research combines action and investigation. The investigation informs action and the researchers learn from the critical reflection on the action.

All AR starts with identifying the problems with clients (in this case grower groups), and then proceeds to design interventions with the group aimed at resolving these problems. The effects of these interventions are evaluated to determine the extent to which the problem has been resolved, and also to learn from the results obtained before moving to the next AR cycle. There are an indeterminate number of cycles of diagnosis, planning, intervention and evaluation, as shown in Diagram 1.

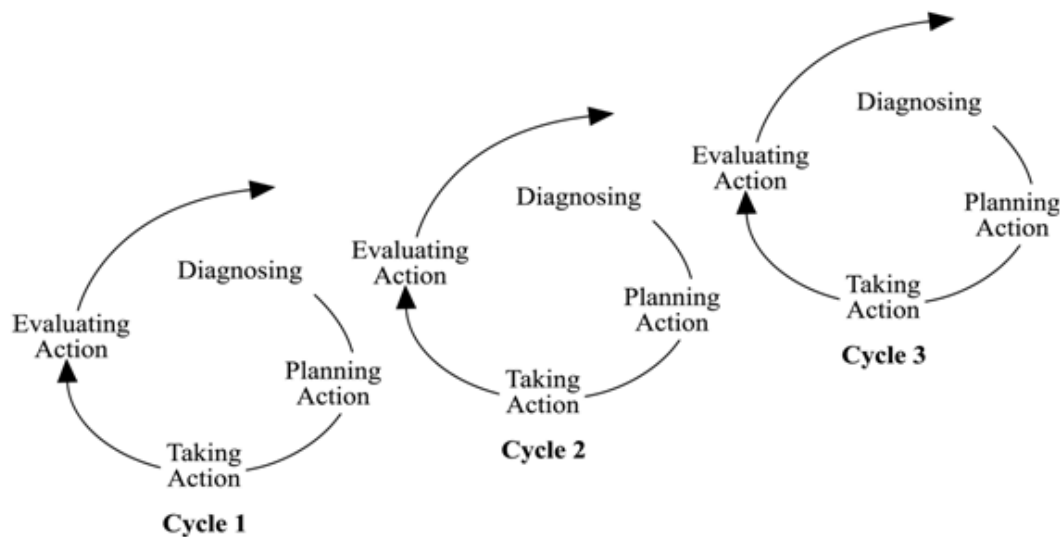


Figure 1: The AR cycle (Source: Coghlan and Brannick, 2001)

This cyclical model, which emphasises learning from feedback and critical reflection, differentiates AR learning from the conventional research process, in which a problem is studied and then action is taken. The cycle promotes learning, since growers learn from academics, and academics learn from growers, and links theory and practice by seeking practical outcomes that can be applied.

3.2 Research Process

The AR team was established in early 2013 comprised four people, with two Lao researchers from local universities, one member of Provincial Agriculture and Forestry Office (PAFO) (seconded to the LPTP program), and one international researcher (see Appendix for details). Three of the four FSC groups previously established by LPTP (Section 2.3) were selected for study, along with a well-established (since 1993) and successful rubber group in Luang Namtha which would enable comparisons and generate ideas for the team during the AR cycles (Table 1).

Table 1: Characteristics of study villages at the beginning of the action research

a) Teak growing villages

Province	Village	Ethnic majority	Total households	Number of group members	Area of plantation (ha.)	Year of group establishment
Luang Prabang	Kok Ngiu	Khmu	186	54	90.9	2009
Luang Prabang	Ensavanh	Lao	103	38	61.6	2011
Luang Prabang	Xianglom	Lao	157	27	36.5	2011
TOTAL			446	118	189.0	

b) Rubber growing village

Luang Namtha	Hat Nyao	Hmong	158	239	984	1993
--------------	----------	-------	-----	-----	-----	------

Source: Lattanavongkhot, (2013), Ling, S., Xayavongsa, L., Chanthaphit, S. and Laoyongxy, C. (2014).

Not all teak growers within each village had chosen to become members of the grower groups supported by LPTP. A socio-economic survey of 127 households in five Luang Prabang villages (including Kok Ngiu and Xianglom) showed that 81% of households had planted teak (Newby et al., 2012): whereas the three teak grower groups listed in Table 1 represent only 27% of households (or only about one third of potential group members). Also not represented in the groups were the generally wealthy absentee landlords who have bought up plantations within the village boundaries, whom LPTP had previously tried and failed to interest in group participation (Richard Laity, personal communication, 28/12/2011).

Each of the selected villages was visited on six occasions on a regular basis between May 2013 and September 2016, which corresponds to six cycles of AR. Within each village, the AR team undertook semi-structured interviews with two subgroups, being firstly with the grower

group committee (5 people), and secondly with ordinary members of the grower group (typically 6-8 people, with an insistence that female growers be represented). While initially the team attempted to interview the same ordinary group members at each cycle, this proved difficult due to their other commitments. Based on their identified constraints, each subgroup developed an action plan for the following period (typically 6-8 months), and then came together to agree on a joint action plan. It was this joint action plan which was then evaluated during the subsequent cycle of AR, in accordance with Diagram 1. The AR cycle in each village took about three hours.

All group action plans were drawn up on large sheets of white paper and left in the village for the groups to refer to. For practical and ethical reasons the semi-structured interviews were not recorded, but field notes were taken in Lao and English and analysed as a team (see Ling, 2013a, 2013b, 2014, 2015a, 2015b, 2016). Since one member of the AR team also worked with LPTP, LPTP was able to understand the issues faced by the groups and lend their support for groups to implement their action plans.

As well as the formal rounds of AR with the grower groups, the research team proactively sought opportunities to attend meetings and workshops, interview government officials and participate in other LPTP activities, all of which contributed to their own knowledge and ability to facilitate the AR process with the groups.

Research Limitations

Research limitations are listed below:

- The three Luang Prabang villages were selected on the criteria of a being an already established group. All were close to the provincial capital of Luang Prabang, and so had greater off-farm income opportunities than poorer more isolated villages. It is necessary to be wary about generalising the findings to other parts of the country, particularly given the rich mosaic of ethnic groups in Lao PDR.
- After the first round of AR, there was a lower than hoped for turnout by ordinary group members (although the committees were represented) during the AR meetings, particularly in 2014 and 2015, which limits the sufficiency of the research.
- It was not possible to examine in detail the social dynamics within villages that may have affected grower group formation, both due to the limited amount of time in each village and because the AR team comprised technical experts, rather than social science experts.

4. Results

The results are presented in a chronological order, beginning with the baseline situation in May 2013 as the AR team began its work, reporting on the situation pre and post the team recommendations, and concluding with the end line situation in September 2016.

4.1 Baseline: collective marketing under threat - May 2013.

During the second quarter of 2013, when the AR team began its work, there was a lot of activity amongst the grower groups. To satisfy the requirements of the newly issued FSC certificate, the groups had received training from LPTP in a suite of topics, which included silviculture, group management and safe harvesting practices. Growers were working with local officials to measure their plantations prior to receiving their plantation certificates, which entitled them to land tax exemptions, was a requirement to legally sell their timber and was considered an extra form of land security. The free plantation certificate from LPTP was cited by ordinary farmers during the AR as the main reason for joining the grower group, which tends to imply that once they have their certificate, there is no longer a reason to remain in the group². Those farmers who had merchantable timber also stated that higher prices were a reason to join the group. LPTP figures supported this latter claim, since 274m³ of FSC teak had been sold over the previous eighteen months to the Burapha Agroforestry Company (BAFCO) in Vientiane, with growers receiving premium prices since sales were based on volume rather than standing trees (Lattanavongkhot, 2013). The TNK mill in Xieng Ngern district, Luang Prabang, had also recently been certified FSC, and was likewise hoping to receive regular supplies and presumably generate some competition.

It emerged during the interviews, however, that even though the prices paid by BAFCO were higher, growers perceived that they were not necessarily better off. Firstly, LPTP records show that official transaction costs (document fees, inventory fees to government departments) ranged between 5.82 and 7.06% per m³, and when combined with the 5%/ m³ grower group management fees (for services such as grading, administration, meetings) meant that growers lost up to 12% of their tree value in additional costs (Lattanavongkhot, 2013). Secondly, growers had to wait three months to be paid in full, since the group had to wait for payment from the buyer (in this case BAFCO) before it could pay its members: such a delay was seen as an unacceptable risk by growers, who have a very high discount rate for future income. Thirdly, growers had to contribute their own labour to cut, transport and measure the trees, and many, particularly those with more lucrative off farm employment, are unwilling to participate. Finally, and perhaps most importantly, growers felt pressured to

² Smith (2016:19) reports on an interview of 68 producers which had been undertaken in 2014 by Objective 1.2a(legality), including in the villages of Xianglom and Ensavanh. She reports that 22% were motivated to obtain certificates to get a higher price, while 19% obtained them because they were free, 19% because they conferred legality and 15% because they gave a land tax exemption. The low figure for land tax exemption (compared to this report) may reflect the fact that Ensavanh, in Xieng Ngern district, received no such exemption, unlike the villages in Luang Prabang district.

harvest their trees when the market wanted them: this is the opposite of their original planting intention, which was to harvest their trees when they needed the money, such as to send their children to school or pay for a family occasion. For all these reasons most growers within the group did not seek to register all their plantations with FSC, and managed their risk by keeping some blocks available for immediate sale.

Despite these misgivings, growers reiterated the importance of the group during the AR. In preparing their action plans, each subgroup in all three teak villages acknowledged that the members and the committee had to be more proactive in sharing information and making a wood sales plan if the growers group was to be sustainable. A typical action plan from the first cycle of AR is given in Table 2.

Table 2: Grower group action plan, Kok Ngiu, Cycle 1, 30/5/2013

Activity	Date	Responsible
1. Hold a meeting to explain the work of the group and make a plan together, including - rules, roles of group, coming to meetings, co-ordination with the village authorities	7,9,11/13	Group committee
2. Workshop to explain the silviculture of teak to ensure members comply with FSC regulations (pruning, thinning etc.)	7,9,11/13	Group committee
3. Develop a plan to sell wood based on member's information	11/13	Members
4. Contact the market for selling teak	12/13	Group committee
5. Hold a meeting with the village committee regarding the expansion of members and data collection	12/13	Group committee and village committee

Source: Ling (2013a).

Table 2 indicates that members agreed to meet regularly, at two month intervals, to plan their next wood sale and contact the markets (Activities 1, 3, 4). A successful sale would encourage more members to join (Activity 5). The plan also assumes that members would manage their trees and make them available for thinning, as a condition for having received their FSC certified plantation certificates (Activity 2). Missing from this and the action plans in all three teak villages was the suggestion from the research team that all four FSC certified villages co-ordinate their wood sales together, which would mean that they could sell a larger consignment of timber at once. Both the committee and ordinary members justified their stance by pointing out that they preferred working together as a village, where there was a high degree of solidarity, rather than trusting those from outside.

4.2 Groups struggling – November 2013.

While all teak groups had prioritized regular meetings in their action plans following the first round of AR (Table 2), only one grower group (Ensavanh) reported that it had held its meeting as planned when the AR team visited again in November 2013. However, despite promising to invite absentee landlords during Round 1 of AR, they didn't end up inviting them to the meeting because "they are rich people, different from us." The other two groups had held no meetings at all in the previous six months (Xianglom, Kok Ngiu). All three teak groups reported that interest in group membership was waning, since members had no time to come to meetings and because there were no sales of FSC wood. Without any FSC wood sales since January 2013, farmers lacked the market information to prove that their membership is worthwhile – they asked the question, "Am I really better off to hold on and sell for an FSC price, or is the price going to be the same anyway?" (Ling, Xayavongsa, Chanthaphit and Laoyongxy 2014:32).

Growers in Kok Ngiu reported that some members had sold timber outside of the group over the past six months, because the group had not organised any sales and they had needed to sell their trees to earn money. Group leaders had tried to organize a harvest planning meeting (Activity 3 of Table 1), but nobody had showed any interest and so they didn't contact the market (Activity 4). The end result is the same as the pre-group situation, in which group members sell their standing trees to middlemen. Under group rules this is prohibited, and any member selling outside the group should pay a fine of 5%. However, because the villagers were "poor" this had not been enforced (Ling, 2013b). Such a precedent suggests that more members will be encouraged to act in a similar manner and undermine group solidarity. In any case, ordinary teak growers generally didn't remember their group regulations, which were 12 pages long and had been prepared by LPTP. It's notable that the need for written rules had only just arisen in the Hat Nyao cooperative, and this 400 member group has been buying rubber from farmers for over ten years now (Ling et al. 2014).

The reason for the disinterest in groups is simple and stated clearly by all interviewed during the AR, being that the benefits of group membership do not outweigh the costs. The head of the Kok Ngiu farmers group reported at a stakeholder workshop on teak management and certification (3/10/2013) that:

There is no incentive for other farmers to join the Kok Ngiu group, as those that have sold their wood in the traditional way through middlemen receive the same price as those who are in the group and sell their wood following all legal administrative processes (Ling et al. 2014:22).

The sentiments are confirmed in the later findings of Anttila (2016:56):

Considering all involved steps, LPTP and BAFCO are not paying comparatively high prices in relation to the burden for farmers of conducting measurement, arranging harvesting

and paper work. LPTP and BAFCO require all the legal steps to be adopted and hence they supply wood that holds a 'legal status.'

Both quotations mention the costs of attaining legality as a disincentive to group formation. LPTP has been active in pushing for tax reforms to encourage a market for small logs (thinnings), since it would encourage group activity and prevent farmers from damaging the long term productivity of their stands by thinning from above. However, they have been frustrated by a lack of action. A representative of the Luang Prabang Wood Association stated at the same 3/10/13 meeting:

Buying thinnings from farmers is unviable for business because of the flat rate of tax levied per cubic metre. They can only offer a low price to farmers and then farmers won't cut their trees (Ling et al. 2014:23).

Several other constraints were identified during the AR process that contributed to the lack of interest in group activity. Firstly, as Newby et al. (2012) have noted, there are numerous opportunities for off-farm income which lessened the importance of teak to household income. In Ensavanh, for example, a large proportion of men are boat drivers for tourists to the local waterfall, so don't have time to come to meetings or maintain their trees according to the FSC management prescriptions. The group committee reported that trainings organized by LPTP to ensure FSC compliance were "often attended by wives or parents, and the results of the meetings are not usually passed on" (Ling et al., 2014:31).

Secondly, and related to the first point, is that rapid economic development within Luang Prabang is leading to rising labour costs, and farmers reported that they were unable to spend time on the co-operative group practices promoted by LPTP, such as sharing labour to harvest trees or carry wood out of the forest. As such, trees needed to be cut and transported by middlemen with machinery, which meant that farmers continued to sell standing trees.

Thirdly, it was suggested by LPTP and the groups that a group revolving fund would encourage membership, since it would prevent farmers selling their timber haphazardly to satisfy immediate household needs, which in turn deprives the group of timber which could be used as a lever to negotiate better prices. This assertion could not be tested, since there was no LPTP budget to establish a specific revolving fund for this purpose. In any case, all three villages did have revolving funds that included provision to make emergency loans to members: of these Xianglom was the largest with assets of 380 million kip (about \$50,000) and a membership that covered about 80% of families in the village (Ling, 2013a).

Based on the information received from the first two rounds of AR, the team was able to develop two cases studies that describe the characteristics of an unsustainable group (Box 2) and a sustainable group (Box 3) (Ling et al., 2014).

Box 2: Characteristics of an unsustainable growers group, Ban Kok Ngiu, Luang Prabang



Members of Ban Kok Ngiu growers group give their opinions during the first round of action research

Kok Ngiu was the first grower group established by LPTP in 2009. It is now struggling, having held no meetings since early 2013, and being unable to complete any of its planned activities during the AR period. Members are losing interest. The reasons put forward to the AR team were:

- There have been no FSC wood sales for the past year, and farmers who need money are forced to sell outside the group. The group revolving fund (now about \$300) is not sufficient to allow the group to buy these trees.
- There is no incentive for other farmers to join the group, since high transaction costs mean that have sold their wood in the traditional way through middlemen receive the same price as those who are in the group and sell their wood following due legal process.
- Farmers take three months to get paid when selling wood through the group, from the time that farmers identified their trees for sale, to receiving their final payments from the group
- Farmers were encouraged to join the group to receive plantation certificates, which allows them to sell their wood and reduced their land taxes. Once they have their certificate, they logically don't feel they need to participate further.
- The rules made by the group are not followed: for example, farmers who should have thinned and sold their wood under the terms of their group membership decided not to do so, which reduced the amount of wood available for buyers.
- Growers have many other income-earning activities, and don't have time to attend meetings or manage their trees
- Members feel the group committee is not transparent, being unsatisfied with the election process and with the way the committee takes a percentage for grading their logs.

Box 3: Characteristics of a successful growers group in Lao – Hatnyao, Luang Namtha



Members of the Hatnyao committee stand outside their office, which was built by the Committee using its own resources

The Hatnyao Cooperative was the most successful of the farmer groups visited. It started selling rubber in 2001, and has since grown to include more than 400 members. Hatnyao considers themselves to be a sustainable group for the following reasons:

- All land is communally owned, which has prevented outsiders from coming in and buying up the land. Only the trees are owned, and may be transferred or sold to others within the village
- The leadership takes an active interest in the plantations of its members, and provides free training on how to tap rubber and manage the plantation. Hatnyao rubber is recognised as having a higher quality since it has less impurities (such as stones), which can command a higher price from buyers
- There is a monthly tender of all rubber tapped, and all members must agree before a sale is concluded. Payment is made to sellers within 2 or 3 days of sale
- The large number of members gives the group bargaining power, and they are able to negotiate a higher price for their members due to the large volume available (over 100 tonnes/month)
- The management committee takes a fixed fee of 150 kip/kg on all sales, meaning that if rubber prices rise or fall then a) the committee isn't perceived as taking too much, and b) the income is sufficient to carry out group tasks. Financial management is transparent.
- The coop has a revolving fund (100 kip/kg on all sales) which members can use to access funds in the event of a urgent needs

Source: Ling et al. (2014:34)

Compared to teak, rubber is perhaps more conducive to forming sustainable grower groups since upon reaching maturity at about the age of seven, it produces latex every second day during the seven-month tapping season in northern Lao PDR. The 158 families in Hat Nyao were reported to earn the equivalent of USD1.2 million in 2012 (Ling, 2013a). There are monthly sales, and with payment made to growers within 2-3 days, there is almost no selling outside the group. Strong and transparent leadership has encouraged new members to join, and there are now about 250 members from outside Hat Nyao village itself. Compared to Kok Ngiu, Hat Nyao growers group has been able to achieve economies of scale, which means that its fixed costs are low as a percentage of total income.

4.3 Recommendation to establish grower group enterprises.

The AR team positioned its recommendations within the framework of the planted wood value chain, and discussed their feasibility with the existing groups and the provincial government before presenting them to LPTP. The key recommendation, from which other recommendations flowed, was to establish grower group enterprises as the conduit for increased returns to smallholders. There were two key changes to the existing group structure. Firstly, the enterprise unit was to be established under the umbrella of the group as a whole, and secondly, it included a respected advisor who played the role of resolving conflicts, ensuring that the group was transparent to its members and reporting regularly to the village authorities. The revised structure of the group is shown in Figure 1.

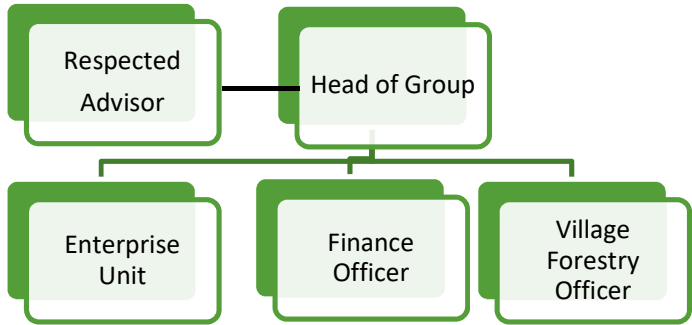


Figure 2: Revised Group structure incorporating the enterprises.

In Lao language documents, the phrase ‘enterprise unit’ was subsequently replaced with ‘value-adding unit’, as the use of the word ‘enterprise’ was considered both overstate the role of a small village based furniture factory and may attract unwanted attention from tax authorities.

The addition of the enterprise unit for the remainder of the AR meant that it was possible to test two forms of grower organisation under the research question. Figure 2 visualises the position of the producers relative to other actors in the existing and the improved value chain, and the impact pathway in order to reach smallholders.

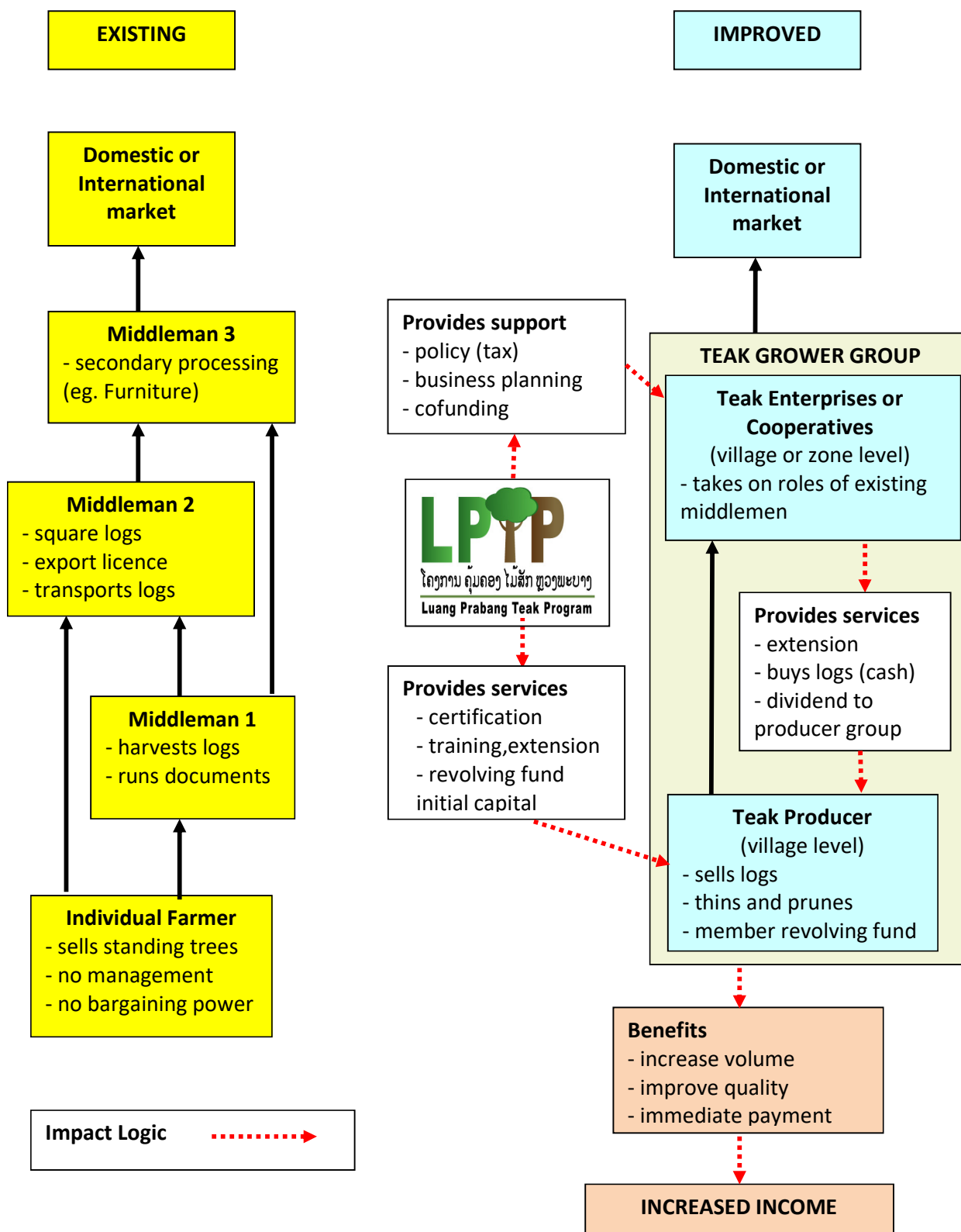


Figure 3: Existing and improved teak value chains in Luang Prabang (Ling et al. 2014:36).

In the existing smallholder value chain, individual farmers (whether in the LPTP group or not) sell standing trees, which pass through a series of middlemen, each of whom needs to make a profit. Many of these middlemen are traders from outside the village, so the profits do not flow back to local people.

The improved value chain aimed to build on the previous work of LPTP in establishing grower groups and supporting them with capacity building and certification. It was hypothesised that the reformed grower groups would be able to increase income to smallholders by shortening the market chain and keeping profits within the local community (the impact logic in Figure 2). The new enterprise units incorporated existing middlemen from within the village, as they are likely to have the capital and market knowledge to help the group succeed. The enterprises will do more than just buying from growers – they would also providing services to growers (such as buying in advance when growers need cash, harvesting and extension). They would buy both FSC and non FSC teak, thereby broadening the group membership base.

In return, according to the law and policy of Lao PDR (such as the Cooperatives Decree PM135), locally owned small enterprises that process locally grown timber should receive tax exemptions³. Rather than relying on a project for markets (like LPTP), the enterprise was advised to seek its own markets, and actively lobby the government to apply its existing laws and policies. Village based enterprises could also join together (possible under the co-operative model) to invest in equipment (such as kilns) or improve their bargaining power by selling a larger consignment than would be possible acting alone.

There would also be social benefits, since they would be able to take advantage of the close kinship ties within their own village or neighbouring villages that encourages local growers to support local businesses, and vice-versa. By providing a percentage of profits to the producer group in accordance with the amount of timber supplied, this social contract would be reinforced. In the long-term, the aim would be to encourage local growers to become shareholders in the enterprise to improve their position within the value chain.

4.4 Enterprises approved and operational – May 2014 to September, 2016.

AR rounds three (which reported on preparations to establish enterprises) and rounds four, five and six (which prepared and monitored action plans in the same manner as rounds one and two) were undertaken between May 2014 and September, 2016. A key objective of these rounds was to determine *“if smallholders were receiving better services and increased returns as a result of establishing the grower group enterprises”* (the Impact Logic in Figure 2). The establishment of the enterprises within the grower groups meant that the AR team also interviewed and made plans with the enterprises during these rounds of AR, along with the grower group committee and ordinary group members (three sub-groups).

³ Although this point was not well understood by the Finance Department, and so enterprises were termed ‘value adding unit’ in Lao language.

The recommendation by the AR team to incorporate grower group enterprises into the existing group structures was endorsed by LPTP and welcomed by the groups. Group representatives from the three villages had an exchange visit with well-established agricultural enterprises in Bokeo province, followed by a week-long training in business planning and management. In September, 2014, both Xianglom and Kok Ngiu received official approval from PAFO to operate an Agriculture and Forestry Enterprise, under the provisions of the 2007 Forest Law. The existing grower group heads in all three villages chose to become the heads of the enterprise units, and elections were held to replace them under the revised group structure (Figure 1). The approval documents allowed Xianglom to formalize their existing small furniture operation, and six grower group members were listed as shareholders. Kok Ngiu invested in a small furniture factory using equipment that was bought from the Chinese market in Luang Prabang, and four grower group members were listed as shareholders. In Ensavanh, the enterprise was approved by PAFO in 2015 and processing machinery purchased, but soon after the enterprise unit leader moved out of the village and left the business to his relatives. It remained unused during the final visit of the AR team (September 2016), and its future was uncertain.

The issuing of the enterprise approval letters by PAFO highlighted inconsistencies in government policy between different departments, which has been described by Smith (2016). At a meeting held in September 2015, the Department of Industry and Commerce stated that it does not recognise the forestry enterprise approval letters issued by the PAFO, with the justification being that they are trying to reduce the number of sawmills (Ling, 2015b). At the same time however, they did issue a permit for the head of the Xianglom enterprise (as an individual) to export round timber to China, which seemed contradictory at the time given that Lao PDR was trying to promote domestic processing.

It is also significant that all three of the grower groups saw their existing group leaders transferred to the enterprises. Given the importance of dynamic leadership to group success, the AR team was interested to see how the relationships between the enterprises and the ordinary members would evolve. As before, the AR team tested the functionality of the groups by comparing the grower group action plans with their subsequent implementation. A common theme of all group action plans between November 2013 (AR Round 2), and October 2015 (AR Round 5) was to have regular members meetings to discuss the work of the committee, provide financial reports and collect membership dues. A summary of the extent to which planned meetings were actually held by the group as measured during the subsequent AR cycle (independent of LPTP activities) is given in Table 3:

Table 3: Extent to which Group Member meetings were held between November 2013 and September 2016

	Ensavanh			Xianglom			Kok Ngiu		
AR Cycle	✓✓	✓	0	✓✓	✓	0	✓✓	✓	0
3-4		X				X			X
5			X			X			X
6		X			X				X

Source: Ling (2015a, 2015b, 2016).

Rating Scale:

- '✓✓' Meetings were held according to the action plan, and most planned topics were discussed;
- '✓' Meetings were held according to the action plan, but planned topics were not discussed;
- '0' No meetings were held.

As Table 3 shows, meetings were held sporadically over the period, and none can be considered to have discussed the issues that had been identified in the previous action plans. Kok Ngiu did not hold a single meeting during the three year period, with the group committee explaining that “people who aren’t ready to sell timber aren’t interested in coming to meetings” (Ling, 2015b:19). Interest in group activities was also low in Ensavanh, where it was reported that in early 2015 only two out of 36 members owned merchantable timber (Ling, 2015a:19).

Without meetings there was a lack of transparency, which led to further disinterest amongst group members. The Forest Officer in the Xienglom group noted:

I don’t know how much wood has been sold by the enterprise, since it is not my role to go and ask them (and I am shy to do so). I am waiting for them to send me a report (Ling, 2015b:21).

A second measure of group functionality was made using socio-economic baseline data collected in 2009 by as part of ACIAR’s sister project in Luang Prabang (FST/2004/057). The AR team traced 47 farmers who had been initially interviewed in Xianglom and Kok Ngiu villages, and assessed their contribution to the grower group in their village. The results are given in Table 4.

Table 4: Contribution of members to the grower group in Xianglom and Kok Ngiu villages

Item	No. of families
1. Number farmers interviewed in 2009	56
2. Number which could be traced in 2015	47
3. Proportion with teak plantations	40/47 = 85%
4. Proportion of those belonging to LPTP	15/40 = 38%
5. Proportion who contributed to the functioning of the group (based on four indicators: attended meetings, adopted thinning/pruning, contributed labour, sold wood through the group.	13/40 = 32%

Source: Ling (2015b)

The figures in Table 4 reinforce the proposition that it is very challenging to encourage farmers to become active group members, with only about 1/3 of teak owners within the two villages both belonging to, and making a contribution to, group functioning (Item 5).

In Xianglom during Cycle 4, several potential members complained to the AR team that it was taking too long for them to join the group (Ling, 2015a). They wanted to sell their timber and needed to have their timber measured and a plantation certificate issued. When asked why they didn't join the group at the outset, they replied that they didn't have wood to sell at that time. The AR team member from LPTP responded at the meeting that it is not possible to immediately offer plantation certificates to all who wanted them, since they were busy supporting growers in other districts to get their plantation certificates. This highlights the reliance that groups have on an external agency like LPTP to sell a legal product that they have grown themselves.

Growers were also aware that they can receive a higher price by selling their wood by the cubic metre, instead of by the standing tree. The head of the Xianglom enterprise has previously paid growers in this fashion. However, he stated that growers prefer to sell standing trees, "since they understand their visual value, and are suspicious of a list of log measurements" (Ling, 2016:9). Growers themselves are conscious of the risk of selling by the cubic metre, since they fear hidden defects that cause the log to be downgraded. Ironically, however, selling standing trees could boost negotiating power, with one farmer remarking "if I don't like the standing tree price I don't have to sell, but once it is cut down I have lost my bargaining power" (Ling, 2016:9).

4.5 End line: new developments favouring enterprises - September 2016.

Throughout the AR process, LPTP had continued to form and train new grower producer groups, which was its mandate under its existing commitments to donors and FSC. By September, 2016, there were a total of 544 members in 22 groups and with assets totalling

644 hectares. The emphasis on grower groups meant that resources were insufficient to promote and develop additional enterprises from three that were approved in 2014.

At September 2016 (AR Round 6), no new shareholders joined the enterprises. This reflects several factors, including the relatively high cost of entry (the value of a share was three million kip in Kok Ngiu), a ‘wait and see’ attitude (will the enterprise be profitable?) and a perception that the enterprises were cliques of relatives. One potential investor in Ensavanh stated, “I am not going to invest in the enterprise, since the shareholders are not my close relatives” (Ling, 2015b:8).

This reluctance is related to the nature of teak itself: as stated in Section 2.2, when compared to agricultural enterprises which harvest a crop at the same time, summarise results, share dividends and move onto the next crop cycle, teak has no end –point. It is therefore very hard for normal members to keep track of the financial status of the enterprise (transparency), which then leads to distrust and disinterest. One grower reported,

I know nothing about the group finances – I have seen wood being sold, and have paid my 5,000 kip/ha for the year, but I know no details. I am not interested to participate (Ling, 2015b:21).

In response, enterprises pointed out that the regular payments needed to run a furniture business on a fulltime basis, many of which are unofficial, and the lack of a proper accounting system, make it difficult to be fully accountable to their members.

In April 2016, the Provincial Forest Service and TFT decided not to renew the FSC certificate, which had expired after five years. Although it was the initial justification for group establishment, its high annual certification fees and the lack of FSC sales (the last FSC sale had been January 2013, before the AR even began) meant that it was unviable. The circumstances thus parallel the KHJL situation in Indonesia described in Section 2.2. The withdrawal of FSC is unlikely to have any impact on group operations.

There were two important developments in 2016, however, that will influence the future operations of the groups. Firstly, the established groups with enterprises (Kok Ngiu and Xianglom) will receive a 10m³ timber drying kiln free of charge under the auspices of the Responsible Asia Forestry and Trade Platform (RAFT3), which includes TFT. The existence of the grower group was a decisive factor in the decision of the donors and Lao governments, and the enterprise units are aware that they would be foolish to disband the group while donor interest continues. The Kok Ngiu group for example, which had not held a single members meeting nor collected membership fees (Table 4), was asked during the final round of AR if it would continue in the event that LPTP ceased its monitoring support. The reply from the enterprise unit leader was unambiguous, telling the AR team, “Even if members don’t pay their fees or be active group members, they will still keep their group membership” (Ling, 2016:8).

Secondly, in response to uncontrolled exports of native timbers (including EIA, 2016), the Lao government issued Decree PM15 in May 2016 which prohibits the export of round wood and unprocessed timber throughout the country, including plantation timbers such as teak. All existing sawmills in Luang Prabang are now being assessed and those that don't meet standards (e.g. evidence of cutting protected species, located close to protected areas, don't produce processed products as per their license conditions) will be closed. All LPTP stakeholders (government and groups) agreed that demand for local teak would be encouraged, with the Kok Ngiu enterprise remarking:

PM 15 should benefit our enterprise by increasing demand and the price of teak wood. Teak furniture was not competitive in the past, because it was so cheap and easy to obtain exotic timbers (such as 'mai dou', 'mai kha'), which are preferred by the market (Ling, 2016:7).

The Xianglom enterprise have signalled their intention to expand by constructing a furniture showroom on the edge of the village in October, 2016, with the intention of eventually relocating the sawmill from its current cramped site within the village.

The AR team continued to monitor the Hat Nyao rubber cooperative over the AR period. It continued to expand its membership despite the low rubber prices, with membership rising from 239 households to 378 households over the year to September 2015. The management committee is compensating for reduced margins by generating income through buying up rubber from other provinces and selling at a profit, and at the end of 2016 submitted a €500,000 proposal for a processing factory to the Belgian development bank BIO-invest. There is a strong financial incentive to be a member of the Hat Nyao cooperative, since members receive a premium of 200kip/kg rubber compared to non-members (the price in September 2015 was 4,000 kip/kg, so members receive 4,200 kip, or a premium of 5%). Transparency and democracy (FAO Principle 4 in Box 1) is enhanced through regular meetings: by way of example, in September 2015 the 380 tonne harvest was stockpiled, since the members didn't accept the price offered by the buyers (Ling, 2015b).

4.6 Are there increased returns from establishing the enterprises?

The common question asked of Kok Ngiu and Xianglom (the groups with an enterprise unit) was whether smallholders were receiving improved returns as a result of establishing the grower group enterprises compared to previously, in accordance with the impact logic in Figure 2.

The Kok Ngiu enterprise has not been able to buy timber directly from villagers on a regular basis, because it has no harvesting equipment and villagers are either unwilling or unable to provide their own labour for harvesting. They therefore continue to sell through the usual middlemen. The enterprise paid a dividend of 300,000 kip into the grower bank account from the processing of about 20m³ of timber in 2015, which represents an annual return of less

than one US dollar⁴ for each of the 54 members. In 2016, the enterprise provided timber to repair the LPTP meeting hall in the village instead of a dividend.

In Xianglom, group members reportedly get a premium of about two percent on their standing trees when they sell directly to the enterprise, which apparently reflects the concessions that they receive from the local district authorities. The head of the Xianglom enterprise told the team, “if a tree is worth 100,000 kip, I’ll give them 102,000 kip” (Ling, 2016:9). The enterprise reported that they had paid a small amount into the group revolving fund from their sales, which includes about 100m³ of squared logs to the Thongsavanh Furniture Factory in Vientiane. Ordinary growers interviewed confirmed that they were happy to sell to the Xianglom enterprise, firstly because there is a long established degree of trust from many years of cooperation and because they come from the same village (social capital), and secondly because is convenient and they are paid in cash straight away (reduced risk).

5. Discussion

The evidence from four years of AR suggests that it is quite challenging to form feasible and sustainable teak grower organisations that truly represent ordinary growers, despite a large investment by LPTP in group facilitation processes. Quite simply, from the viewpoint of the ordinary grower, the overall economic and social returns from group membership do not exceed the overall costs under current conditions.

The findings in Lao PDR are perhaps not surprising, when compared with the outcomes difficulties faced by other plantation groups referred to in the literature review (Elson, 2016, Midgley, 2016). Yet when ACIAR began its work in 2012, there was a genuine belief amongst the development community that organized growers selling certified wood was the future of smallholder forestry, and this was reflected in the work of organizations such as TFT. This optimistic view is reflected in the literature cited in the interim report (Ling et al., 2014), in which some promising examples of grower groups accessing certified markets were identified. By the time this report was prepared (September, 2016) however, several new studies had raised doubts about the long term sustainability of grower groups (Race and Wettenhall, 2016; Elson and Unggul 2016; Midgley, Stevens and Arnold, 2016).

The following observations on the research question can be drawn from the AR process.

Certification failed to deliver a better return to growers

The teak groups were formed due to a desire on the part of donors and government to produce FSC certified teak. Only growers who were willing to meet FSC standards became members of this group, and even then most did not register all their plantations until they

⁴ One US dollar corresponds to about 8,000 Lao kip.

could see whether FSC markets would deliver real benefits. When this proved not to be the case, farmers returned to their traditional market, which was selling standing trees via middlemen. In May 2016, the FSC certificate covering the three villages studied was returned, with Flanagan and Laity (2016:16) remarking that the FSC model was not worthwhile given that local teak markets were “primarily influenced by price, rather than environmental concerns.”

The failure of FSC to deliver better returns to growers has been replicated in Indonesia and Vietnam. Race and Wettenhall (2016) were able to compare FSC and non-FSC sales in two locations in Indonesia, and reported premiums of 10% in Gunungkidul district and between 15 and 30% in Pati district, although it is not clear in their paper whether this premium comes at the cost of delayed payment. Even so, they question whether these increased financial returns are worth the extra efforts and risks to meet certification, since:

The tree grower must provide evidence of compliance with the standard through regular independent audits. As a result, certification schemes impose obligations on growers that don't exist when a grower simply sells logs to a trader or processor (p. 79). In Vietnam, Hoang, Hoshino and Hashimoto (2015) reported that despite the existence of a price premium for FSC acacia, twenty people left the grower group. While the extensive paperwork needed to sell the trees was one factor, the requirement to grow logs to a certain size before harvest dramatically increased farmer risk. With each passing year, the value of the wood increases exponentially, along with the risks of either storm damage or simply doubts that there will really be a price premium after such a long wait for a return.

The problems with certification for forest growers are epitomized in a recent publication by the founder of TFT, Scott Poynton (2015:65), who observes that despite twenty years of efforts, “certification hasn't succeeded, and we need to open our minds to other ways of working.”

The proportion of income from teak is too small to entice growers into groups

Even if FSC sales had delivered a reliable and premium priced market in Luang Prabang, however, other obstacles to forming and sustaining teak grower groups are likely to have been too great to overcome.

The AR in Luang Prabang confirmed that the results of other studies on the limited importance of plantations to grower income in Thailand and Indonesia (Boulay, Tacconi & Kanowski (2012), Obidzinski et al. 2014). Smith et al. (2016:19), reports that teak made up only 7% of household income within 68 households surveyed in 2014, including Xianglom and Ensavanh, although there was a high variation between individual households. At this proportion, even a net 14% premium on teak prices would boost annual incomes by only 1%. This small proportion relegates it the status of a secondary occupation, and farmers treat membership of the teak group as such. It is logical that smallholder farmers in Luang Prabang would

relegate long term plantation species such as teak in this manner, since their first priority is to plant short term cash crops and raise small livestock that provide a regular annual income to cover rice shortfalls and pay the regular household expenses. By contrast in Hat Nyao, rubber trees produce latex every second day, sales are made every month, and rubber is the primary source of household income (Box 3). Unlike rubber growers, who rely heavily on their committee to facilitate monthly sales, individuals in Kok Ngiu “may feel no reticence about taking advantage of opportunities to sell outside the group if they are offered a higher price elsewhere, since sales may be perceived to be a one-off” (Smith et al., 2016:12).

Anecdotally, the findings of Newby et al. (2012) on social differentiation were confirmed in this study. There was evidence that social capital measures of groups (such as reciprocity and connectedness) were undermined by increased off farm income. Wealthier members were not willing to contribute their labour or time to join group meetings, while poorer members had no capital to contribute. Social differentiation compromises the second of FAO’s principles for sustainable groups (Box 1), which is that groups should be homogeneous.

The needs based nature of teak harvesting is not conducive to group formation

An advantage of teak for the smallholder is that unlike seasonal agricultural products which must be harvested at a certain time, teak can be harvested when it suits them. This characteristic provides bargaining power to risk averse poorer farmers, since, if they don’t like the price offered or don’t need the money, they can simply leave the tree standing.

The disadvantage of teak is that groups are then less sustainable, since they are not forced to sell collectively, resulting in the conflicting objectives of group membership described earlier. LPTP expects groups to thin regularly to improve stand quality and supply markets on a regular basis, whereas smallholders regard their trees as a ‘safety net’ or a long term asset, to be harvested to pay one off expenses such as university fees or hospital charges. It is ironic that the very factor that undermines group sustainability, also benefits the poorest members of the group.

The risk minimisation strategies of smallholders in Luang Prabang have been demonstrated in several parts of this paper, making them consistent with the growers in Indonesia and Vietnam described earlier (Race and Wettenhall, 2016; Hoang et al. 2015). It is interesting to speculate on group feasibility were these risks to be reduced: for example, if a processing factory was able to pay premium prices for small logs, would farmers decide to organise themselves, or would they default to the kind of outgrower models that already occur in Thailand and Vietnam?

Groups were dependent on external actors

To produce FSC certified teak, by necessity LPTP was the service provider, and the farmer groups were the receivers. Such an arrangement makes it difficult to foster self-reliance. In

a review of farmer organisations in Lao PDR, Folkard, Virvong, Connell, and Photakhoun (2011:27) note the ubiquitousness of this model, but note that such “groups are unlikely to persist once inputs end, or likely to mature or evolve towards more dynamic farmer organisations on their own”. Again there are parallels with the work in Indonesia, as Race and Wettenhall (2016:109) point out:

Sometimes the main aim of an NGO adopting a participatory approach is to mobilise the community for service delivery efficiency, rather than to improve the people’s ability to participate in their own development more meaningfully and to foster long term social change.

LPTP made great efforts to encourage the grower groups to be sustainable, and there were numerous training opportunities and support visits. But there was simply little interest from ordinary growers. On several occasions, LPTP facilitated group restructures when it was felt that individuals within the structure were not performing. These efforts bring to mind the words of Lao’s Department of Agricultural Extension and Co-operatives (2015):

Poor management is often mentioned as a reason for failure of groups, but the underlying problem could be that members do not have a shared vision, or a respect for group rules, or a feeling of responsibility towards each other (p.3).

Folkard et al. (2011) agree that producer groups do have a role when ‘farmer learning’ is the main objective. This was the case at the beginning of the project, and early on in the AR process, Ling et al. (2014:24) observed that:

The work of measuring plantations and obtaining certificates kept the farmer groups busy in the early stages of establishment. There are now not enough regular activities to keep them together as a close knit group, and interest in membership is therefore falling.

Even though the village forest officer has been an integral part of the group structure (both pre and post enterprise), they have no official authority to register or approve the sale of timber. Smith (2016) suggests that they should be responsible for proving legality, thereby eliminating the need for district involvement and its associated costs and streamlining membership. In Vietnam, a grower may legally harvest her/his trees if there is no objection from the village-based forest officer within 10 days (Ling, 2016).

Enterprises add to feasibility and sustainability, but limit producer participation

The introduction of the enterprises was designed to overcome some of the challenges listed above, and move the group towards a commercial operation that was linked to the market, in the hope of obtaining sustainability. Folkard et al. (2011), observed that Lao farmer organisations linked to trading were much more likely to be sustainable. The research team recognised the important role that middlemen play in the teak value chain by attempting to include them in the enterprise unit of the group, a strategy which has since been endorsed in papers by Perdana and Roshetko (2015), and Anttila (2016).

It requires a great deal of investment and expertise to setup a teak enterprise, and only two of the three villages studied managed to do so. One of these (Xianglom) was essentially formalising an already established business, while the other (Kok Ngiu) was able to do so because a new son in law, with wood processing experience, had moved into the household. While feasible and sustainable, the enterprises proved hard to break into for ordinary group members, due to the high entry cost and the lack of financial transparency. Again it is the non-seasonal nature of teak described earlier that means that enterprises purchase teak throughout the year, making monitoring by ordinary growers difficult. Further, they lack the technical expertise in milling to determine if their returns are transparent were they to invest in the enterprise. As such, the enterprises did not add any more shareholders since their approval by PAFO, although it is not clear how proactive they were in encouraging growers to join. It appears unlikely that the initial hope of the AR team, which was that producers purchase shares in the enterprises to improve their position in the value chain, will be realised in the short term.

The value chain revisited

In accordance with the impact logic in Diagram 2, however, ordinary members should still potentially benefit from a local enterprise through increased prices. As noted in Section 4.6, producers are receiving a small price premiums and top-up to the group revolving fund from the enterprises. However, with so few sales it is difficult to claim that this amount significantly benefits growers.

As well as increased income, non-monetary returns, should be reflected in the analysis. All Xianglom growers, for example, are reported to sell to the local enterprise, which not only is convenient because the enterprise owns the harvesting machinery, but also serves to maintain the social and family connections needed for village harmony. In Kok Ngiu, this social capital factor could not be tested since the enterprise lacks harvesting machinery and growers must sell through middlemen.

Even so, given the constraints of teak growing compared to other agriculture products, it is possible that there is no form of grower organisation that can significantly improve returns to smallholders in the short term. But in a dynamic policy environment, it is too early to categorically state that groups are an unviable option for teak farmers. Firstly, producer groups are a key platform of government policy, and those growers that are able to form groups will receive preferential treatment, as evidenced by the donation of a 10m³ kiln by the RAFT3 project. Faster drying times and higher wood quality should theoretically boost profit margins and increase grower returns. Secondly, niche high value enterprises are also supported by government as a way to differentiate Lao PDR from its ASEAN neighbours practising industrial agriculture. Finally, most businesses begin small and comprise family members and it may simply take time: the Nordic forest owner's co-operatives, which are often cited as an example to emulate, took decades to establish themselves.

6. Conclusions

Positioning of the research methodology

This report has researched one small aspect of the teak value chain in Luang Prabang, by gathering information on the evolution of three FSC certified grower groups in Luang Prabang using an AR approach over a period of four years. This long period of research is unusual in academia, and has provided a unique insight into group dynamics as contextual circumstances have evolved in several senses.

Firstly, the AR began at a time when groups were active in the expectation that FSC would provide them with higher prices, and was completed at a time when the FSC certificate was discontinued due to a lack of sales. Secondly, AR began when native forest logging was largely uncontrolled, and completed with new hope that teak growers and processors would benefit from improved management policies which would benefit domestic processors. Thirdly, it occurred during a period of intense interest in grower organisations in the academic community, during which the ability of these organisations to access the value chain was questioned.

Responses to the Research Question

The research question was:

“To identify and test what forms of grower organisation are feasible and sustainable, and will improve returns to smallholders; and explore how these can be fostered.”

The AR enabled the study of two forms of teak grower organisation, being pre and post the addition of the enterprise unit.

The first stage of the AR process (or pre- enterprise unit) showed that ordinary growers and LPTP had conflicting motivations to participate in the groups. While growers joined the group to gain legality or minimise tax, LPTP expected the groups to collectively market their timber on a regular basis. However, FSC did not provide a sufficient price premium, particularly for small logs, to motivate risk averse smallholders. Since they did not intend to sell their trees on a regular basis, there was no incentive for growers to remain active in the group once their plantation certificate had been received. In any case, the AR process identified that such joint marketing would potentially discriminate against the poorest members of the group, who dispose of assets not to enjoy regular income, but to overcome household shocks (the ‘safety net’). Under these circumstances, this form of grower group is neither feasible nor sustainable.

The grower group leaders, however, did benefit from training and exchange opportunities provided by LPTP that broadened their market knowledge. When given the opportunity, all three invested their own funds to set up enterprises, which were deliberately retained under the group structure to ensure that their social benefits would be recognised by local

authorities. The second stage of AR showed that since their establishment in 2014, the Xianglom and Kok Ngiu enterprises had confidently invested in factory site improvement and new machinery, thereby appearing to be both feasible and sustainable.

Government and donor policy favouring groups has influenced their viability. An impetus for group sustainability has been provided by Decree PM15 of 2016. Better timber management by the Lao government will encourage donors, who prefer to channel their support to social enterprises (such as grower groups), which meet the three pillars of economic, social and environmental sustainability. Under the umbrella of the grower group, the two enterprises have received a new 10m³ kiln, which should theoretically lead to cost savings which are passed onto producers under the social contract of the group. This symbiotic relationship provides a degree of leverage to future policy makers to ensure that the benefits of such projects are shared equitably between the enterprises and the producers. It is in the interests of both the enterprise and the producers to maintain the group, even if there are no regular activities.

Given that teak is a long-term product for smallholders, there is insufficient evidence at this stage to suggest that group members have improved their returns as a result of the local enterprises, since they have chosen not to become shareholders. Improved returns will likely occur in time as a result of local enterprises paying higher prices for timber, rather than through active group membership. This is because that there is clearly a viable niche market for quality teak furniture produced by local enterprises in Luang Prabang, which provides social and economic benefits. An improved teak value chain, in which local enterprises purchase wood from local growers and employs local people, appears to have a future whether producers are actively involved or not.

Implications of the research

The research on grower groups has complemented the findings of the other teams working on this ACIAR project. Now that the restrictions imposed by FSC have been lifted, LPTP now has an opportunity to modify its approach. Rather than certification, the focus should be on 'proof of legality', which can provide certainty to potential investors under existing processes such as the EU's Forest Law Enforcement, Governance and Trade (FLEGT) platform (Flanagan and Laity, 2016). LPTP can develop a streamlined training curricula without needing to invest heavily in formal group structures and regulations, which frees up resources to developing sustainable enterprises for the 22 grower groups already trained.

The research demonstrates that for groups to increase their viability, they must move from dependence on outsiders towards self-reliance. In particular, there is an important role for the Forest Officer in the group structure to demonstrate legality. Both Smith (2016) and Said (2016) recommend changes to the current unwieldy system of plantation registration, since high transaction costs (both official and unofficial) to prove legality discourages buyers,

particularly for small logs. One option is to decentralise this process to the village level, under the umbrella of the grower groups, as indicated in Diagram 1.

Future research possibilities

While this research was confined to only three teak groups, the AR team believes it is likely that its conclusions may be extended beyond Luang Prabang given the resemblances between smallholder tree growers in South-east Asia. This can be confirmed by further studies, especially as external circumstances change. Were 'proof of legality' for example, be decentralised as recommended, then greater transparency and ownership at village level may encourage more growers to join the enterprises, or perhaps the kiln provided to the Kok Ngiu and Xianglom enterprises may boost enterprise profits and with them grower group dividends. It is likely that the current debate in the literature about the merits of grower groups will continue.

Finally, more research is needed into the type of infrastructure and machinery that is best suited to these enterprises, particularly for small logs, which will enable them to develop the high end products required by niche markets.

7. Literature Cited

- ACIAR (2010). *Enhancing Key Elements of the Value Chains for Plantation-Grown Wood in Lao PDR, Project Proposal*, FST/2010/012, Australian Government, Canberra.
- Antilla, J.P. (2016). *Implications of middlemen in smallholder teak production systems in Northern Lao People's Democratic Republic (Lao PDR)*, Master Thesis, Dept. of Forest Sciences, University of Helsinki, Finland.
- Barr, R. (2006). *Linking Small-Scale Agroforests to International Markets for FSC-Certified Wood: A Case Study of the Cooperative for Sustainable Successful Forests, or 'KHJL'*, Tropical Forest Trust, Indonesia.
- Boer, K. and Seneanachak, H. (2016). *Mapping and Characterisation of Plantation Teak in Luang Prabang Province, Lao PDR*. Final Report. Objective 1.1, VALTIP2 FST/2010/012, ACIAR Canberra.
- Boulay, A., Tacconi, L., & Kanowski, P. (2012). Drivers of adoption of eucalypt tree farming by smallholders in Thailand, *Agroforestry Systems*, 84(2), 179-189. doi:<http://dx.doi.org/10.1007/s10457-011-9451-y>
- Coghlan, D. and Brannick, T. (2009). *Doing Action Research in your own organization*, 3rd ed., ISBN 1848602154, xii, 170pp
- Department of Agriculture Extension and Co-operatives (2015). *Sustainable Farmer Organisations: DAEC Framework for FO Capacity-Building*, August 2015, Government of Lao PDR, Vientiane.
- Environmental Investigation Agency (EIA) (2016). Red Alert: How fraudulent Siamese rosewood exports from Laos and Cambodia are undermining CITES protection, London, UK.
- Elson, D. and Unggal, S. (2016). How Indonesia's best known forest cooperative lost its way. *Effective Forest and Farm Producer Organizations*, Chapter 3.8. 206-212.
- Food and Agriculture Organisation (1994). *The group promoter's resource book: A practical guide to building rural self-help groups*, FAO, Rome.
- Fisher, R.J. (2006). *What is Action Research? An introduction to Action Research for community development*. Paper prepared for Working Party Meeting on Action Research for Integrated Community Development, 5-8th April 2014, Teheran, Iran.
- Flanagan, A. and Laity, R. (2016). *Final Implementation Report for Component 1.3 (b) [Certification]*, Final Report. Objective 1.2 a, VALTIP2, ACIAR, Canberra.
- Folkard, A., Virvong, B., Connell, J., and Photakhoun, V. (2011). *Farmer Organizations: Opportunities, Constraints and Pathways for Development*, Report for the Sub Working Group on Farmers and Agribusiness (SWGAB), Vientiane.
- Hoang, H. Hoshino, S. and Hashimoto, S. (2015). Costs comparison between FSC and Non FSC Acacia plantations in Quang Tri Province, Vietnam. *International Journal of Environmental Science and Development*, Vol. 6, No. 12. DOI: 10.7763/IJESD.2015.V6.727.
- Lattanavongkhot, B. (2013). *'Luang Prabang Teak Program'*. Powerpoint presentation at the Meeting on teak management and certification, Luang Prabang, 3rd October, 2013.
- Ling, S. (2013a). *Fieldtrip Notes, Action Research Round 1*. May 2013.

- Ling, S. (2013b). *Fieldtrip Notes, Action Research Round 2*. November 2013
- Ling, S. (2014). *Fieldtrip Notes, Action Research Round 3*. May 2014
- Ling, S. (2015a). *Fieldtrip Notes, Action Research Round 4*. February, 2015.
- Ling, S. (2015b). *Fieldtrip Notes, Action Research Round 5*. September, 2015.
- Ling, S. (2016). *Fieldtrip Notes, Action Research Round 6*. September, 2016.
- Ling, S., Xayavongsa, L., Chanthaphit, S. and Laoyongxy, C. (2014). *The rationale for, and feasible approaches to, the development of growers groups*. A report produced for the ACIAR project “Enhancing Key Elements of the Value Chains for Plantation-Grown Wood in Lao PDR” (Project FST/2012/012, VALTIP2).
- Midgley, S.J., Stevens, P.R., and Arnold, R.J. (2016). *Hidden assets: Asia’s smallholder wood resources, and their contribution to supply chains of commercial wood*. Draft paper submitted to J. Aust. For.
- Midgley, S., Blyth, M., Mounlamai, K., Midgley, D., & Brown, A. (2007). *Towards improving profitability of teak in integrated smallholder farming systems in northern Laos*. ACIAR Technical Reports 64. Australian Centre for International Agricultural Research, Canberra.
- Newby, J. C., Cramb, R. A., Sakanphet, S., & McNamara, S. (2012). Smallholder Teak and Agrarian Change in Northern Laos. *Small-Scale Forestry*, 11(1), 27–46. doi:10.1007/s11842-011-9167-x
- Obidzinski, K., Dermawan, A., Andrianto, A., Komarudin, H. and Hernawan, D (2014). Timber legality verification and small-scale forestry enterprises in Indonesia: Lessons learned and policy options, *CIFOR Infobrief* No. 76, May, 2014, Centre for International Forestry Research (CIFOR), Bogor, Indonesia.
- Perdana, A., Roshetko, J. M., & Kurniawan, I. (2012). Forces of Competition: Smallholding Teak Producers in Indonesia. *International Forestry Review*, 14(2), 238–248. doi:10.1505/146554812800923417
- Perdana, A. and Roshetko, J.M. (2015) Survival strategy: traders of smallholder teak in Indonesia. *International Forestry Review*. Vol. 17 (4).
- Poynton, S. (2015). *Beyond Certification*, Published by Dō Sustainability, Oxford, UK
- Race, D. and Sumarit, B. (2015). Exploring the implications of social inequalities in community forestry: emerging lessons from two forests in Indonesia. *Int. J. Sustainable Development*, Vol. 18, No. 3, 211-228.
- Rigg, J., Salamanca, A., & Thompson, E. C. (2016). The puzzle of East and Southeast Asia’s persistent smallholder. *Journal of Rural Studies*, 43, 118–133. <http://doi.org/10.1016/j.jrurstud.2015.11.003>
- Said, A. (2016). *Transaction Costs Associated with Growing and Selling Smallholder Plantation Grown Wood in Lao PDR – Incidence and Mitigations*. Final Report. Objective 1.2b, VALTIP2 FST/2010/012, ACIAR Canberra.
- Smith, H. (2016). *Smallholder Plantation Legality in Lao PDR: A study to assess the legal barriers to smallholder plantations and the associated timber value chain*. Final Report. Objective 1.2a, VALTIP2 FST/2010/012, ACIAR Canberra.

Smith, H.F. Ling, S. and Boer, K. (2016). *'What influences compliance with plantation regulations: Teak smallholders in Lao PDR.'* Draft paper submitted to J. Aust. For.

Appendix – Team Profile

Mr Stuart Ling (Team Leader) has a Master's Degree in Economics and 20 years' experience working in rural Lao PDR. He was Country Program Manager for the Belgian NGO Vredeseilanden in Lao PDR from 2002 to 2010, and has been a Consultant in agriculture and rural development for the past six years. Fluent in Lao language, he is based in the province of Bokeo.

Dr Lamphoune Xayvongsa is a senior lecturer in the Faculty of Forestry at the National University of Lao (Dong Dok). His research interests are participatory forest management, community forestry, non-timber forest products and rural development planning.

Mr Sychan Chandiphit started in late 2013 as a research assistant with the Luang Prabang Teak Program (LPTP), and is based at the Forestry Section of the PAFO, Luang Prabang. Prior to this appointment he spent 20 years as a researcher at the Upland Agriculture Research Centre, Luang Prabang, with a particular interest in teak silviculture.

Ms Sengkham Phonchaluen is a lecturer in social forestry within the Faculty of Agriculture and Natural Resources at Souphanouvong University in Luang Prabang.