

Stories of Change

A Study of Farmer Perceptions of Change in Thanh Hóa's Bamboo Sector

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Abbreviations

GRET	Groupe de Recherche de recherche et d'changes Technologiques
IAR	Impact Assessment Report
PI	Prosperity Initiative
TAMS	Text Analysis Markup System

Abstract

In late 2009, the Prosperity Initiative conducted a qualitative study of farmer experiences in the bamboo sector of two Communes in Thanh Hóa Province, Việt Nam. The study built upon the findings of the 2009 Bamboo Impact Assessment (Baulch, et al., 2009) and focussed farmers, collectors and workshops perceptions of change in recent years. The qualitative study highlights five issues arising from farmer interpretations of change:

- a] farmers and local government officials see bamboo as a crop of central importance to the livelihoods of the region, and of particular importance for the poor;
- b] while a robust trading network for bamboo culms in the area, there is little variation in prices or competition between collectors;
- c] for most poor households, trade with village collectors is based on advance payments and debt, an issue that has not been documented in previous PI studies. Understanding the dynamics of these payments—and the role of credit within the trading network, is important in designing programs to support the bamboo value chain;
- d] while it is generally acknowledged that the management of bamboo plots in the area is sub-optimal, poor farmers have few short term incentives to upgrade the quality of their plantation through more carefully managed harvesting. The poorest households are caught in a trap of depending on their bamboo plots to meet day to day expenses, and cannot wait for their plots to regenerate, instead cutting bamboo culms increasingly young with negative impacts on price and sustainability;
- e] finally, little institutional support exists for bamboo farmers. Local agricultural extension programs focus on rice and animal husbandry, and the small extension programs that are available to farmers through NGOs are small in scale and in reach.

1 Introduction

The goal of this report is to offer a summary of two weeks of qualitative research with bamboo farmers conducted in Quan Hóa and Bá Thước Districts of Thanh Hóa province. The goal of the research was to provide a qualitative addition to the Prosperity Initiative's mainly quantitative 2009 Impact Assessment of ongoing interventions in Việt Nam's bamboo sector (Baulch et al., 2009), which aim to increase farmer income and livelihoods. The focus of this study is on documenting farmer *interpretations* of recent changes in the sector and in their lives.

The 2009 Bamboo Impact Assessment is based on a panel survey of 210 households and 110 bamboo traders in three districts in Thanh Hóa. The report indicates that bamboo activities are ranked third amongst households, (after irrigated rice and poultry) in terms of its importance as an economic activity. More than 80% of the households cultivated bamboo, with 66% of these households harvesting culms at least once a year and 20% harvesting it monthly or quarterly. The median yield of the main species of bamboo, *luong* (*Dendrocalmus barbatus*) was 286 culms per hectare.

Thanh Hóa in recent years has seen a growing number of traders, collectors and processors in the *luong* value chain. At the same time, the 2009 survey found that most households tend to sell their *luong* only to one buyer, and most carry culms on their shoulders to the point of sale. Most of the buying took place within communes (82%) and less than 25% of the bamboo sold was processed into high value products. The survey concludes that the extreme poverty (using the international poverty line of \$1.25/day) in these districts has decreased from 61% in 2006 to 55% in 2008. Household incomes were approximately \$231 an annum higher among households with *luong* than without incomes from *luong*" (Baulch et al., 2009, p. 2).

The report further estimates that if *luong* prices increase to \$50/ton and its yields reach a sustainable level (approximately 600 culms per hectare), the percentage of people living in extreme poverty—that is, below \$1.25 per day poverty line—would fall from 49% in 2008 to 33% in 2015. In other words 62,000 people will leave extreme poverty. If *luong* prices go up to \$67/ton, poverty will reduce to 32% translating to 13,500 more people leaving poverty by 2020. These projections are bound to increase if the \$2/day poverty line is used (Baulch et al., 2009).

The primary goals of this qualitative research was to add depth to the findings of the Impact Assessment study and to probe deeper into some of the 'how' and 'why' questions concerning what motivates farmers to make decisions regarding their *luong* cultivation practices. The key research questions, as laid out at the outset of the survey (See Appendix 1 for a full description) were:

1. How does bamboo fit into farm households' accumulation strategies?
2. When and why do farmers chose to cut bamboo?
3. How are relationships between farmers and buyers structured? How as PI changed this?
4. What government resources do households draw upon for bamboo development?
5. What are households' future plans?

This report documents accounts of change in the voices of farmers, workers, collectors and workshop owners themselves. For this reason, whenever possible, direct quotes are used to explain changes and interpretations of events. Finally, the report attempts to account for relationships between various actors in the bamboo trading network in a way that quantitative many surveys cannot.

2 Review of Study Sites

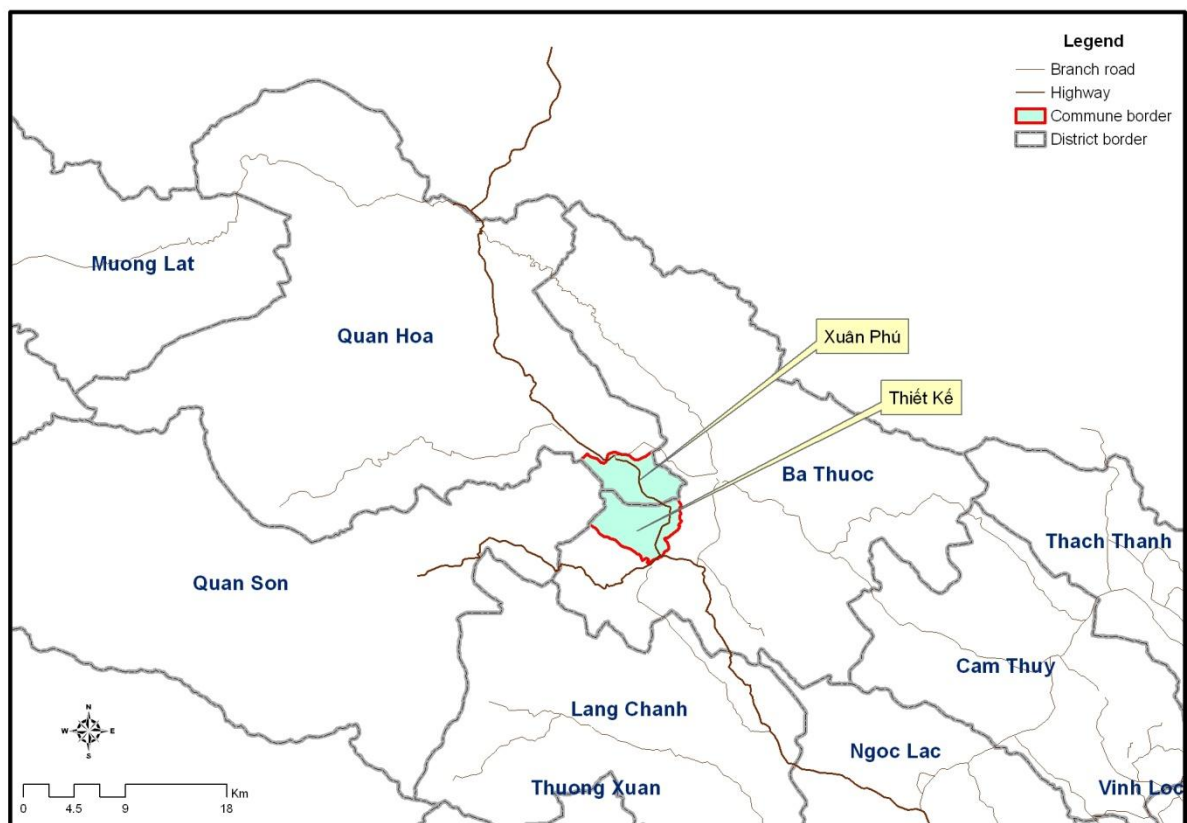
The two communes chosen for study were Xuân Phú, in Quan Hóa District and Thiết Kế in Bá Thước. They were chosen largely because both were relatively close to bamboo traders and workshops, and had similar extent of cultivated bamboo. Xuân Phú, however, was much more commercialized, with a larger number of workshops and far more bamboo sales.

Table 1: Basic Information on Thiết Kế and Xuân Phú Communes

	Unit	Thiết Kế	Xuân Phú
Number of Villages	Villages	5	4
Total Land Area	Ha	2,812.83	2,446.33
Population Density	Person/Square km	108.96	60.98
Main ethnic groups	Households	Muong 95 Thai 3 Kinh 2	Muong 35 Thai 50 Kinh 15
Number of bamboo collectors	Collectors	8	5
Number of processing workshops	Workshops	1	5
Mean culm sales per household	Culms/year	3415.00	1023056.00

See Map 1 (next page) for the location of the two study communes. Thiết Kế, though located along the road approximately 10 kilometers from Xuân Phú, has poorer infrastructure, making access to *luong* forests much more difficult (which in large part serves to explain the divergent levels of commercialization). It is notable that because both Communes were located reasonably close to a major road highway and to workshops in Xuân Phú, the sample did not capture the lives of households in more far flung villages. This was in part a result of errors during the purposeful sampling procedure, during which the team overestimated the distance from Thiết Kế from the central workshops in Quan Hóa district.

Map 1: Location of Thiết Kế and Xuân Phú communes



3 Methodology

Research for this report was conducted in two one week trips in late November and December of 2009. A small team of seven interviewers from PI (Nguyen Thi Phuong Dung, Vu Hoang Linh, Pham Thi Lien Huong) the Cooperative for Rural Development (CRD) (Le Van Dung, Nguyen Thi Thu Phuong, Le Thanh Yen) and Hadava (Dang Dinh Tam, Nguyen Thi Thuyet) conducted interviews with the support of local government officials in arranging logistics. Jim Delaney, the main author of this report, served as team leader and led training and analysis. The methods used combined semi-structured interviews with some group-oriented tools derived from participatory rural research methods (Bailey, White, & Pain, 1999; Patton, 2002).

- **Group interviews (12)** – Group interviews were conducted at the outset of each research period. Two tools were used: first, a local bamboo mapping exercise; and second; a Venn Diagramming exercise. The former was used to gain a quick understanding of the area, and to begin to discuss key trends in the local bamboo sector. Venn diagrams were used to discuss local perceptions of institutions and the importance of different institutions (including both government institutions and private sector actors such as collectors and traders). In both cases, the visual diagrams were used as a method to promote discussion rather than to create an output that could describe a reality – i.e. there was no attempt made to draw maps to scale.
- **Historical interviews (6)** – Oral histories were conducted with 3 elders in Xuân Phú Commune. The team found these quite informative, and increased their number in Theit Ke to 9.



Image 1: Farmers in a mapping session

- **Farmer interviews (24)** –in Xuân Phú, interviews were conducted separately with both the man and woman of the household. This was changed during the second phase of fieldwork in Xuân Phú due to a fear of repetition and onerous burdens on household respondents. In the second phase, a series of five interviews were added with females while not interviewing their husbands. These interviews focused much more clearly on gender dynamics.

- **Collectors and Traders interviews (4)** – In total 4 interviews were held with collectors (with an additional collector being captured during farmer interviews) and one held with a large trader. The team planned to visit a number of other large traders, but were unable to time constraint and administrative procedures.
- **Workshops visits (2)** – one processing workshop was visited in Xuân Phú, and one trading cooperative that had engaged in processing activities was visited in Thiết Kế. An additional 5 interviews conducted by the Team Leader in the previous three months are used to further flesh out these findings.

Interviews were conducted in Việt Nameese, which, while a second language to most households interviewed (who were primarily of Thai and Muong ethnicity), is universally spoken and understood in the area. Typically, two people from the research team conducted each interview, with one acting as the main interviewer and the second as a note taker and recorder. Pairs were split with one man and one women, with the male taking the lead in interviewing male farmers and the female leading interviews with women. An additional attempt was made, whenever possible, to team one interview member from PI with a CRD or Hadava staff who was much more familiar with the local context. All interviews were digitally recorded, transcribed and coded using the TAMS (Text Analysis Markup System) system in Vietnamese (Weinstein, 2010).

The research began with a two day training held in Hanoi during November 2009, during which team members developed research questions and the tools to be used for data collection. During the research process itself, nightly team debriefings were held to specify key lessons learned and when necessary to tweak questions and methods. In January 2010, an analysis workshop was held during which all researchers were invited to Hanoi to examine preliminary themes and offer interpretations. Many of the interpretations written here stem directly from this workshop and the evening review sessions held during the field research.

Stories of change

The second PI Impact Assessment exercise noted significant changes in poverty in the region, at least some of which can be attributed to income derived from *luong*. This section documents farmer perceptions of these changes, including the perceived role of *luong* in reducing poverty at the household, village and communes scales. It should be noted, however, that these qualitative interviews can do little quantify these changes let alone attribute them to PI.¹ Instead, the focus here is on farmers' *perceptions* of change. Attending to perceptions and interpretations leads to two issues that should be kept in mind while reading the points below. First, it is quite difficult for most farmers to identify *qualitative* changes in their lives that have taken place in the past two to three years. The changes that are more easily apparent are ones that have taken place over decades, which is borne out below in farmer voices and stories.

Second, it can at times be difficult for farmers to distinguish between what changes in their lives can be attributed to bamboo income versus other activities. Indeed, as can be seen below, most farmers that spoke of major changes in their lives in the past few years could only do so when speaking of higher-income activities, such as off-farm employment and livestock. The language often used by farmers themselves was that of what it took to "become rich" (*giàu*) rather than reduce poverty. As will be discussed below, this points to aspirations that have, along with Việt Nam's rural transformation, increased in recent years.

That the quantitative measures of poverty used in the IAR differ at times from the voices of farmers themselves is unsurprising, and is a finding borne out in numerous other studies of poverty and socio-economic change (see Ravallion, 2003). One of the key differences between the two is the use of an absolute poverty line in the IAR (\$1.25 USD per day in 2005 PPP terms), and farmers' tendencies to use a relative poverty line.² At the same time, it should be highlighted that farmer perceptions of their own poverty, and perceptions of the potential role of bamboo in moving them out of poverty, are important. As is discussed further below, these perceptions structure farmers willingness to invest in their bamboo plots, and their approach to entering into trading relationships.

3.1 Changes in recent years



Image 2: Farmer on her bamboo plot

¹ For further notes on attribution, see (Baulch et al., 2009, p. 6)

² See (Kanbur & Squire, 1999) for a review of poverty definitions and their implications.

During interviews, farmers spoke of numerous changes of the past three years, including increased prices for bamboo and, at times, more buyers. Increases in prices were seen as being important to the wellbeing of farmers, though very few could identify significant changes in their lives that derived from bamboo income alone. On the other hand, the increase in the number of workshops was often highlighted as having a visible and significant impact on the quality of farmers' lives, not only because they provide an important source of off-farm income for some households but also because they provide a new purchaser for bamboo. As noted below, workshops purchase bamboo culms at slightly higher prices than collectors, but more importantly, purchase a wider range of bamboo culms, including small culms and those that are not straight. In the words of one farmer, who had been asked about recent changes:

"...in general, the people who had difficulties still have difficulties, and those that did not still do not. I think that the biggest resource for local people now is that the government is giving poor people loans; poor people can now borrow, and people that are not so poor can also borrow. This has helped a lot of people to buy buffalo and cattle, and plant a number of different trees. That is the first thing. The second thing is that people have been able to buy some equipment do the house, like motorbikes and televisions, and things like that. That is really the only resource that people have been able to draw upon to develop their livelihoods. That's all." (TK-F-1)

Changes at the household level in the past three years were most often documented as being relatively minor. A small number of farmers noted that they were able to purchase consumer durables such as televisions and motorbikes, but this was a minority, with most farmers reporting that their lives were essentially the same.³ The IAR indicates that roughly one quarter of households have purchased assets in the past three years, in particular telephones and televisions purchased in 2008.

Many farmers had considerable difficulty reflecting on changes in the past three years (since the baseline survey) and most often simply replied that their lives were the same or, in some cases due to sickness or other calamities, worse. In fact, many farmers were generally dismissive of the proposition that luong had played a significant role in improving their lives in recent years. In the words of one farmer:

"...my life has not gotten better at all. I am still sick and hurting, and all that I know how to do is gather luong. I do not work off the farm, or raise animals, or do other things that could make me money." (TK-F-1)

In general, farmers were often dismissive of the potential of luong to improve their lives dramatically:

"Luong in general only takes care of people's daily lives here – nobody becomes rich from luong. This is not talking about those people like those who buy and sell luong, because they can become rich from luong, and we can see it, along with the people in workshops. But for the farmers, most only have enough to support their day- to- day lives and luong does not help them at all to become richer. That's why we want people like you to come here and tell us what we have to do for luong to help us to become richer: we need how much, and have to plant how, so that working with our luong will make us richer, because for the moment, luong in this area only helps take care of our day to day lives." (TK-F-4).

³ PI has conducted a quantitative analysis of asset accumulation (Chowdhuri, 2010), which provide a better source of information for documenting these changes.

The issue of perception is important here, for it should be remembered that interviewers explicitly did not use the international \$1.25 dollar/day criteria used to measure poverty as in the Impact Assessment report. Instead, farmers were asked to reflect on whether their luong plots were making them less poor, or increasing their overall wealth. For most farmers, the relative aspects of poverty were the most important and most immediate issues to reflect on. They commonly compared their lot with the better off in their village and commune, and thought about the differences between their activities and those of the better off. This issue, and the important aspirational aspects, will be further discussed below.

While most farmers did not see luong as a beneficial crop for moving out of poverty in relative terms, there were a number of farmers who did indicate positive changes in recent years. The following conversation provides an example of this:

“Q: In the past two years, has your household income changed

A: Yes, it has changed!

Q: Have these changes been a result of your luong income?

A: Yes, from luong!

Q: Why have there been these recent changes? You’ve had luong for many years haven’t you?

A: Because I have little more experience, and have been able to plant more...I have more land to plant on, and I would like to try to do some bamboo shoots in the future.

Q: So you have more bamboo land?

A: Yes, more land and more bamboo.” (TK-F-3)

It is important to highlight that in this case, as in some others, farmers who have noted an improved position due to luong income do so because they have increased their bamboo land. For some, when reflecting further back in time, this planting took place more than a decade ago in the late 1990s, with subsidies from Project 327, a government reforestation program with special support for local people in mountainous areas.⁴ Others have taken it upon themselves to acquire new land more recently where possible, or convert other degraded land under their title to *luong*. For this reason, many farmers believe that they will only be able to improve their incomes from bamboo if they acquire more land:

“If you can invest in the luong, and have a lot of land to plant a lot, then you can become richer....so the households who in the past got a lot of land are richer than other households, because they have better economic conditions to start with.” (TK-F-1)

It is important to highlight, then, the common perception that luong is primarily an activity for the poor. As households developed their incomes—usually due to other forms of income, drawing upon their luong plantations became far less regular. It is significant that, during an interview with one farmer who had participated in a model on-farm trial of improved cultivation methods with GRET, he noted that although he believed that the new plot would earn him more money, he did not plan to convert all of his land to improved cultivation methods. Instead, he is planning to use some of the

⁴ Project 327 for the Re-Greening of Barren Hills began in 1992. Along with subsidized forest planting, it provided subsidies for salt and other consumer products for poor households in mountainous areas.

extra income that he was deriving from luong since the trial to begin further diversifying his income through investments in animal husbandry.

“In general, for people in this area, in the past few years their lives have gotten better because they have been able to work as labourers...As for luong, when people begin to work outside, they don’t worry about their plantations any more.....”

The overall narrative that emerges from farmers—that luong is exceptionally important for the poor but becomes less so as households move out of poverty—is in not wholly in keeping with the findings of the second Impact Assessment Report. Table 2 below indicates that the percentage of household income derived from bamboo generally rises with incomes. In this case, it is likely that farmers perceive that these wealthier households, who are also engaged in other activities such as animal husbandry, are benefitting more from other activities than they are in reality. The fact that most households, both poor and non-poor, cultivate luong focuses the attention of many farmers on those activities that distinguish the poor from the non-poor. It is also possible that the very poorest households have lower land endowments, an issue that was raised by a number of informants in this study. The relative role of luong in household asset accumulation and income generating strategies is an area worthy of future research by PI.

Table 2 : Bamboo income as percentage of household income

Income groups	Bamboo incomes as % of total income	Income from bamboo cultivation as % of total income
Lowest 20%	13.63%	12.10%
Second 20%	13.41%	9.79%
Middle 20%	10.75%	10.00%
Fourth 20%	16.46%	15.69%
Highest 20%	20.72%	13.89%
All households	14.98%	12.30%

Source: Calculated from second Thanh Hoa Bamboo Survey

One activity that was often cited as an important difference between the very poor and non-poor households was the existence of one or more family members with employment in a workshop. During interviews, it became clear that these kinds of work were a significant aspiration of many, and was usually described as the major reason for any qualitative change in a household’s living circumstances. This has placed luong not only as a key agricultural product but also as the key driver of rural industrialization in the area in the minds of local officials and farmers. Bamboo processing makes up the vast majority of local industry, and when most farmers refer to workshops, it is bamboo-based workshops that they speak of. At the same time, in Thiết Kế commune, which lacks bamboo workshop of its own⁵, many households pointed to the importance of the local rock crushing workshop as an important source of household income. While some farmers decried the workshop as noisy and difficult work, having a family member working in the workshop was an important indicator of being better off.

⁵ This workshop was operating in the commune at the time of the 2009 Impact Assessment Survey. Although this cooperatively owned workshop is still technically operational, it has not produced any goods in the past year. It should be noted, however, that many households in the commune have members who work in workshops in Xuan Phu.

While many workshop workers spoke of the importance of this employment (with one young woman claiming that between her and her younger brother, they earned more than 90% of their family income) they also noted that the work at the workshops is highly unstable:

“somedays I work, and somedays I do not...for this reason, we continue to harvest luong on a regular basis both as a supplement and as a means to fill in when we are not working.” (XP-F-4)

For this reason, it is important to note that, while workshop-based employment may or may not be a significant contributor to household income in the region in aggregate, it is certainly significant among those households who have family members employed in workshops. Moreover, households who did not have access to workshop employment noted it as a major aspiration for their family. Local officials were also adamant in promoting workshops as a means to create employment for more farmers, speaking of the ‘investment’ that they will bring.

When asked to consider changes over a longer term—the past decade—farmers noted significant qualitative changes in their lives that they largely attributed to luong and the increased opportunities to plant and sell. These changes involved the deepening of trade, the increase in the number of collectors, and proliferation of workshops throughout the district.

“There have been many changes lately. There is a lot more trade now than there used to be. People are cutting more, and are selling more, there are more traders, and only now can we sell a lot. Before, we couldn’t sell much at all.” (XP-F-3)

Indeed, when asked to indicate qualitative changes in their lives, the most common reference period was the changes that have taken place since the end of the “subsidy period.”⁶ During this time, farmers have been able to sell their luong more easily and have had access to other market opportunities previously closed to them.

During the historical interviews, commune elders, were asked to identify important periods of expansion of luong land and activities in the region. Following the first phase of interviews, these dates were used as reference points to further probe into important topics. These are presented in the table below.

Table 3: Important periods of historical change

Period	Key importance
1972	Establishment of the formal collectives in the region. During this time, farmers noted significant planting of luong throughout the District.
1986	The informal allocation of land to households. Farmers receive land for free but, in some cases, must pay for bamboo on their land.
1988	The first collectors and traders from the lowland begin to arrive in the Districts.
1996	Land reallocation based on new criteria following the 1993 Land Law. Project 327 encourages large scale plantation of luong on this land along with other tree crops.
2002	Farmers receive red books for their bamboo land.

⁶ Major historical markers were identified during the first stage of research with a small number of elderly villagers. Following this, these markers were used to structure all historical interviews. See table 4.

There are a number of historical factors emerging from interviews that are important to highlight in the context of this study. First, while farmers have long depended on luong for their livelihoods, the gradual importance of luong has gradually increased, particularly since the process of Doi Moi began. Prior to collectivization and the establishment of formal collectives in the 1970s, farmers indicate that luong was primarily used locally for house building and other domestic activities. Second, farmers can identify few times of rapid expansion of luong areas that were not subsidized by the government. The periods that are particularly important to note are the periods just following collectivization and just after doi moi, both periods of intense socio-economic transformation that brought with them new schemes and projects to transform the local economy.

Finally, it is important to highlight are the relatively early informal and formal land reforms, that conferred tenure to farmers in the area. The creation of a smallholder-dominated bamboo cultivation area is somewhat unique within Việt Nam, and has provided many of the structural conditions that have led to the trade networks described in Section 5.

3.2 Changing prices

The second PI Impact Assessment Report found that “While nominal luong prices have risen by around 30% in the last two years, this is slower than the price increases for some food commodities and has only just kept up with inflation.” (Baulch 2009, p. 35). When asked about prices, most farmers agreed that they have indeed risen in recent years. At the same time, farmers expressed different levels of satisfaction with current prices. While some farmers indicated that they were pleased with the rate by which bamboo prices had risen in recent years, others voiced concerns that prices had not risen as fast as other commodities.

In the words of one male farmer:

“The price of luong has not been very good. Two years ago, two culms of luong would get me a kilogram of pork. But not any more... the prices of everything is going up quickly, but the price of luong has not kept up with these.” (XP-F-2).

In the words of a female member of a focus group:

“[Bamboo prices are] rising, but compared to other prices, not so much. Compared to the price of rice, it is not rising at all...for example, three culms of luong can buy one kilogram of meat...Compared to 1992, the price of rice was 10,000, one luong culm was 2,000. But now, luong is only 14,000 and rice is 85,000! Tastier rice is 100,000! So maybe the price of luong is going up, but today, the price is rising slower than for other things” (XP-V-3).

This gradual but steady rise in prices, which many farmers noted goes back much longer in time, was often highlighted as an important benefit of the crop. While other crops saw faster increases at times, the reliability of luong, and its tendency not to suffer from fast collapses in prices, was often pointed to as a key strength.

Farmers noted prices vary by season, reaching a high point in October and November of each year and then falling around the time of the Tet (lunar New Year) holiday. These price variations, however, were small (between 500 and 1,000 per tree) and not considered significant by many farmers. For

example, while prices are low near Tet, many farmers still arrange their harvests during this season for other reasons, primarily the need to amass money to spend during the holiday.

Farmers often attributed the recent changes in prices to new markets, and somewhat surprisingly, often used the language of the market. One farmer, when asked why prices had risen in recent years, responded that:

“One reason is the market, as there are more people now who need bamboo. Before, there were not yet any workshop activities, so luong was only really used for construction. Today, luong is being used for many different products, so people need more of it. So the business people have to increase their prices.” (XP-C-1).

Explicit focus was most often placed on the entrance of more workshops into the area in recent years as a key driver of changes in prices:

“Three years ago, there were not many workshops here, so the price of luong was quite low. In the past three years, the price of luong has never dropped. For example, in 2007, in the nearby workshop, one culm was only 8-9 thousand, but today the same culm is up to 15-17 thousand” (XP-F-5).

Workshops do, on the whole, purchase luong at prices slightly higher than collectors and traders and also purchase a wider range of bamboo qualities (See section **Error! Reference source not found.**), and for this reason, farmers and government officials alike have a tendency to attribute rising prices in the area to their establishment. Officials in Thiết Kế largely explained the fact that prices were lower in their commune than in Xuân Phú through the fact that they did not have workshops.

Farmers recollection of price changes over the past three years are generally keeping with PIs other price monitoring efforts. They speak of gradually rising prices that have failed recently to keep up with the costs of other important goods. It is notable that this trend of relatively stable prices was at times highlighted as a benefit of bamboo. Stable prices and reliable markets have made bamboo farming a very secure investment for many farmers, and this security was often highlighted as an important aspect of the crop – especially for poorer farmers.

4 Why do farmers value bamboo?

4.1 The role of bamboo incomes in the household economy

The previous section highlighted that, in the *perceptions* of farmers and many local government officials, luong is appropriate for poor households due to its reliability but it has constraints when it comes to moving households to higher levels of income. While a beneficial crop, growing luong is not an activity that allows one to “become rich” and for the most part only serves to provide for day-to-day needs. While this perception was common, it should be noted that luong was at the same time perceived to be a highly beneficial crop, and one that is especially useful for and appropriate for poor households. This section reviews some of the reasons that farmers give for luong being useful economically. The focus here, following farmer narratives, are on: a) low labour requirements; b) stable prices; and, c) stable markets.

Most farmers reported bamboo as being either the first or the second most important crop for themselves and for their villages, a finding which is in line with both of PI's previous impact assessments. This importance was both in terms of relevance to overall household income, but also the specific role that bamboo plays in paying for ongoing expenses, and the flexibility that farmers have in deciding when to harvest and how to manage it. In the words of one farmer:

“Luong is very important, and if I did not have it, I would not be able to do anything. I have to spend money at the start of the year for my child to study and eat, and if I did not have luong, then I don't know where I would look for it. The price of luong is stable, and rises a little every day without dropping.” (XP-F-4)

There are two points made here, both worth highlighting, and both commonly stated by interviewees. First, luong is an important and common source of income for various cash expenses ranging from school fees to food and health care expenses. For these expenses, luong is generally cut just before the payment is required. In the case of emergencies, it can also be used as collateral for loans from local collectors, who will purchase with advance payments (See Section 5.2). Second, as noted above, the price of luong is quite stable, and while it has not risen much in recent years—at least in comparison to other crops, which have seen dramatic price increases—its price seldom drops. Therefore, luong offers a stable and secure source of income. In the words of another farmer:

“[Luong...] is the source of my economy. When I am sick it is there, when I am well it is there...These bamboo trees will provide me income for my whole life. These are not just short-term trees. Also, when I am low on [other] economic resources, I always have income from my bamboo.” (XP-F-2)

Another farmer specified, when asked what he would do if he did not have luong:

“If my family did not have luong, then it would be very difficult for us. If I had to hire my labour out, it would be seasonal, and if I was sick then I would not be able to work and that would be a big problem, and my family's living standard would be lower” (TK-F-4).

One of the key advantages of luong, according to farmers interviewed, is that it is quite easy to sell. Buyers for all sizes and grades of luong can be found, and it can be sold year round, albeit with some seasonal variations in price. In the end, it is this ability for farmers to harvest *when they need money* that sets bamboo aside as a useful crop, especially for the poor. In the words of one farmer:

“I know have to cut luong properly in order to manage [my plot]. The biggest and tallest of the trees can reach 20,000 VND. The prices go up and down a little. But when [buyers] want to buy at cheaper prices, then I just won't cut! But when I need money then I have to cut when the prices are cheaper. Every time that I cut, I can cut just enough for people to buy.” (XP-V-3)

4.2 Harvests

Farmers are generally able to harvest bamboo at times and in volumes that suit them. Time and time again, interviewees noted this as a key benefit of bamboo farming. While a general trend seems to indicate that some of the larger volume harvests are close to the Việt Nameese lunar New Year (in January/February) there is much variation depending on family situations. In the words of one small collector:

Q: So when you usually harvest to sell to the collector, do you sell a few dozen culms, a hundred, or...

A: Oh, I can't say, sometimes I will only cut three culms, sometimes thirty, sometimes three hundred. It all depends on whether our needs are big or small. It also depends on how much time we have to harvest. For example, when we have free time, then we will harvest; if we are very busy, then not so much...people here cut all the time. Many of us don't have much paddy land, so we must cut all year round

Harvesting times vary between households and villages. Indeed, many farmers interviewed for the study noted that the ability to harvest at different times of the year was one of the major benefits of bamboo as a crop:

"When I need money I harvest, that's all ... For example, whenever I need something or don't have enough money, then I will cut [luong]. Or when somebody comes to buy, then I will cut it for them. Vegetables, on the other hand are only seasonal."(XP-F-3)



Image 3: Stand of luong bamboo

It is important, therefore, to highlight that farmers can draw upon *luong* as a source emergency finance when they require extra income and deal with shocks and emergencies. For this reason, it can be expected that bamboo can provide an important income smoothing function. The role of bamboo in household portfolios therefore can be much better documented and analysed. Many households speak about this quite explicitly, in the words of one farmer:

"For example, if a household does not have any luong tree at all, and they have trouble working off of their farm, and are sick, then they always have to go and borrow money for everything, which is very hard on the family." (TK-F-4)

Wealthier households, by contrast, harvest *luong* relatively infrequently. At times, this was voiced as a strategy to improve the quality of their stands, as in the case of one female farmer who had migrated from the lowlands. Households who had other incomes, such as government salaries or incomes from trading or wages from working in workshops, at times explained that they did not have the time or access to labour that they would need to harvest *luong*. In some cases, respondents mentioned not having been able to harvest in the past three years (TK-F-2).

The advantages of luong, therefore, are many. Most important are the ease of cultivation and the ease of sale.

4.3 Gender dynamics of harvesting

Within most households, there appeared to be a clear division of labour between men and women when it came to harvesting *luong*. With few exceptions, men and women alike reported that it is the men who decide on the timing of annual harvests and coordinate most of the labour to conduct harvests. When asked to explain why it was that women were not as involved in harvesting, farmers responded that the work to coordinate and conduct large harvests was quite heavy, and therefore more appropriate for the stronger member of the family.

“The men are the ones who do the big harvests – women are in charge of planting other things. Both the husband and wife discuss luong, but when we have to go to harvest it is the husband’s job, we usually ask 3-4 friends to help out. When need need to make a living, our friends will come to help. The wife can’t harvest by herself” (XP-M-2).

While men were primarily involved in planning and conducting large annual harvests, women conducted smaller harvests of 4 to 20 culms on a regular basis. These unplanned harvests were often conducted to pay school fees and other unexpected expenses, and often served as a means to repay short term debt from money lenders. In most of these cases, women were primarily responsible for the harvesting. Because the poles are heavy, women will often drag them to the road, especially down the slope of hills to leave on the roadside (TK-M-1).

The fact that men coordinated harvesting did not seem to impact greatly on women’s ability to influence the use of money from harvesting. Most women interviewed for the study stated that they either controlled the money deriving from bamboo, or decided on all uses of money in association with their husbands. This finding is keeping with many reports of gendered decision making in household budgets in Việt Nam (See Hy Van Luong, 2005).

5 The Dynamics of Trade

Thanh Hóa province has a well established trading network for bamboo, which draws upon linkages between buyers in the lowlands of Thanh Hóa and other provinces on Việt Nam’s Red River Delta and local farmers, collectors and workshops. Other technical PI reports (Baulch & Fox, 2008; Baulch et al., 2009) have commented on volumes of trade, and dynamics of the trade network.⁷ The luong value chain is comprised of a wide range of actors, including farmers, collectors, traders, small scale processors (including handicrafts and semi-finished goods), large scale processors such as pulp and paper and industrial flooring and sideboards, and various actors in the construction industry (Marsh & Ngo, 2009; Marsh & Smith, 2007). To this is added a number of institutional actors, such as government agencies, NGOs and certification agents who play a role in structuring the forms and pattern of trade. This section, in keeping with the qualitative goals of this report, highlights the

⁷ PI has also recently commissioned a study and analysis of culm trading patterns in the construction industry. See (Lê Văn Dũng, 2010).

relationships between various actors in the trading network and; in particular, the relationships between farmers, collectors and traders.

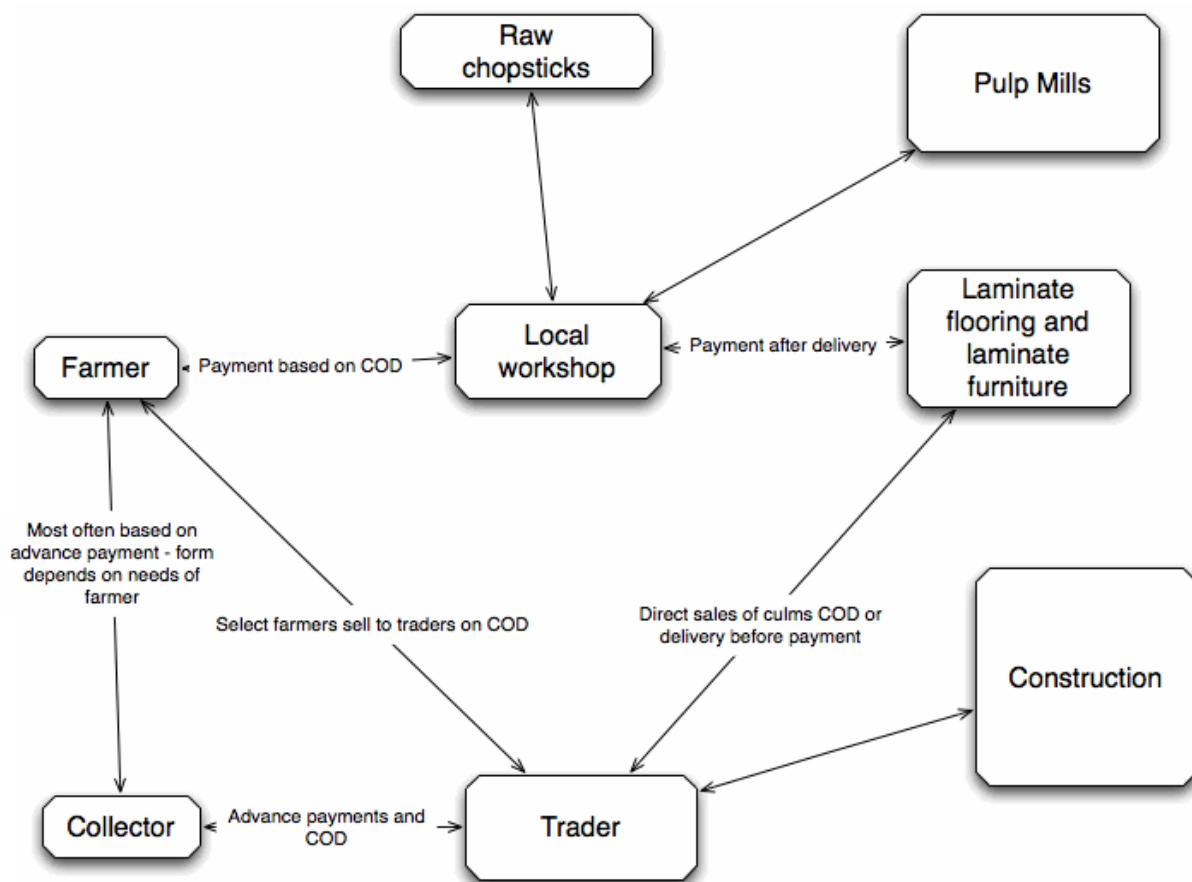


Figure 1: Simplified Trade Map

In its first impact baseline study (Baulch & Fox, 2008), PI established a distinction between local collectors and long distance traders, described elsewhere (CIDA, n.d.) as “Forest Gate Traders” and “Province Gate Traders.” While this distinction has been relaxed more recently, it remains useful and seems to align with distinctions that local collectors and farmers make themselves, who often make the distinction between the “thu gom” (collector) and the “nha xe” (trucker). At the same time, it should be understood that the distinctions between collector, trader and processor can be fuzzy. The line dividing processors and traders is particularly porous, as most processors engage in trading of raw culms from time to time, and many traders have attempted to establish processing activities, at times with little success. Indeed, two of the local traders interviewed for this study, the cooperative venture outlined below and a private family trading enterprise, had both attempted to enter processing with no success. The two workshops owners interviewed both engaged in trading prior to entering processing and continue to trade on occasion to fill specific orders.⁸

Whom farmers trade with and how they trade is heavily influenced by their own livelihood dynamics and social position, including relative poverty, ethnicity, gender and the location of their homes and

⁸ The desire to enter into processing activities speaks to the high risks involved in trading, particularly when there are large advance payments to collectors.

land. Factors listed by farmers as influencing whom they trade with included: a] distance from their bamboo plots; b] access to credit; c] long term relationships and trust; and, d] price. As bamboo culms are heavy and difficult to transport, the choice of whom to sell to is often made on the basis of who is closest to the farmers' plots. Farmers choose *who* to trade with using multiple criteria. Prices, while a factor for some, are generally not a strong criteria for those farmers who do not have direct access to a long distance trader or workshop.

As with planting programs, village elders identified periods of increased luong trade in the districts. Private traders from the lowlands began to enter the districts in the early 1990s and early 1990s. One trader interviewed for this study established her business in 1989, and claims to be among the first in the area to enter into commercial bamboo trade. Prior to this, following informal land allocation to farmers in 1987, households could sell harvested bamboo culms directly to local government offices (the office of construction and the office of materials) or at times transport culms themselves to lowland villages to sell for construction. While black market trade to the lowlands offered higher prices, most farmers continued to sell locally because of the high costs associated with transportation. With the gradual increase in long distance trade for culms came the growth and establishment of local traders and of collectors. Farmers note that the key to increasing long distance trade was the improvement of road networks, which reduced costs and brought more traders to the districts.

Collectors generally offer similar culm purchase prices within each village, and while there can be some variation, prices tend to be similar within the same commune. Those farmers that noted significant differences in the prices later explained that these were because of collectors buying culms of different grades or qualities. Farmers offered a number of interpretations for the uniform local prices: on one hand, a common assertion was that collectors unfairly colluded to keep prices down. This, along with constant downward pressure on prices from debt payments, was offered as evidence that collectors were 'unfair' in their practices, and could be pitted against farmers in this regard. On the other hand, some farmers pointed to the low margins taken by collectors and the hard work that they did to indicate that the prices that they offered were 'fair.'

On the whole, there was no major pattern arising from the interviews regarding farmers' satisfaction with the prices that they were offered. There did seem to be some correlation between wealthier or 'better off' farmers being more satisfied with prices, which could owe to either: a] the relative lack of debt that these farmers have taken from collector; and, b] a generally higher knowledge of the prices available in other districts. For example, one group of women interviewed in Xuân Phú showed both significant understanding of prices in other communes and districts and a generally high rate of satisfaction with prices that they received. A common response to the question of who sets prices was that prices were determined by large traders and workshops, not by collectors themselves.

Table 4: Farmer perceptions of buyer advantages

	Collectors	Workshops	Long distance traders
Advantages	<p>Close to home</p> <p>When payment not in advance, can be slow on payment at times.</p> <p>Can provide loans in advance in repayment for</p> <p>Often runs a small store and trades in other commodities.</p> <p>Provides numerous interlocking services for farmers.</p>	<p>Pays quickly (typically cash on delivery.)</p> <p>Takes a wide range of bamboo culms, including young culms and those that are not straight.</p> <p>Can pay a slightly higher price at times</p> <p>Prices are clearly posted outside of workshop door.</p>	<p>Pays cash on delivery.</p> <p>Takes a wide range of culms.</p> <p>Will pay a higher price than collectors.</p>
Disadvantages	<p>Prices can be lower than traders.</p> <p>Payment in advance can lead to depressed prices</p> <p>Bargaining over quality differentiation can depress prices.</p>	<p>May not be located close to home or farm.</p> <p>Will not advance money.</p> <p>Some workshops have strict quality requirements.</p>	<p>Difficult to access if you do not know a trader in advance</p> <p>Will not advance money</p> <p>Often refuses to trade directly with farmers in favor of collectors</p>

Farmers spoke highly about workshops when they were located close to their homes. Workshops offer another outlet for their bamboo culms, and at prices that are slightly higher than those offered by traders. Farmers noted, however, that these prices were at times offset by the fact that workshops did not offer advance payments, instead paying in cash on delivery. The cash on delivery was especially appreciated by those farmers who did not require cash in advance, as payments from workshops were on the whole seen as faster than collectors, who would at times delay payments farmers. While workshop owners spoke about the higher quality culms that they would buy to produce slat flooring, farmers instead mentioned the wide range of culms that workshop owners will buy. This wide range, both on the upper end for aged bamboo, and on the lower end for young bamboo culms and culms that were not straight, offered a significant benefit for many over collectors, who would often refuse poles that did not meet their requirements, primarily for straight poles useful for construction.

“It depends on the season. I will sell to whoever has the best price. If I need some money fast, then I will sell in advance. But if the workshops are offering better prices, then I will sell to them.” (XP-V-3)

Another benefit at times attributed to workshops is their transparency. Workshops post their current prices on the walls of their premises and update these fairly recently. Indeed, one farmer noted that it was only after workshops opened that they could know the prices of bamboo, because collectors would simply tell them what they wanted at the time, perhaps pushing the prices lower.

It is also notable that social relationships, and likely ethnicity, play a role here as well. When asked whether other local households were able to sell directly to long distance traders, the farmer responded that she was the only one able to do so.

Q: In this area, are there many people who sell to Mr. Mai like you do?

A: No, I am the only one who knows him.

Q: Only you –that’s all?

A: Yes, because I know him, I will only sell to him

Q: Oh, so if you don’t know him, then he will not buy from you?

A: No, he won’t

Q: So why can’t other households sell to him?

A: Because they just don’t know him yet. (TK-F-3)

It is also worth noting that in this case, the farmer in question was a Kinh (Vietnamese ethnic majority) person from the lowlands who had migrated to the uplands years earlier. The conversation points to the important social relationships that structure trade all along the chain. Aside from social relationships (‘knowing a trader’), volume also plays a role in drawing farmers directly into relationships with traders. Farmers mentioned that traders used to collect culms directly from farmers as recent as ten years ago, but they stopped doing so because the small numbers of culms collected by each trader would be onerous. The time spent stopping the truck often was much better used working through local collectors (TK-F-2). A small number of other better off farmers (XP-M-1) spoke of selling directly to traders, but this was only made possible by their ability to harvest large amounts once a year rather than the more frequent smaller harvests that poorer households conduct.

When advance payments are involved, relationships of trust become more important, as all actors along the value chain have an incentive to ensure that they are repaid.

Q: How many people do you sell to?

A: One person. Since, the start, I’ve only sold to the one person. They’ve helped me a lot. When I’m sick, I often go to borrow money in advance

Q: So, what is their price like?

A: Oh, it follows the market, when it goes up, I go up, when it goes down, I go down.

Q: Do you ask in advance how much your collector is buying for?

A: The collector is like a friend of mine, so I don’t have to ask in advance, whatever they will pay is what I will buy at. On any day that I need money, the prices may be reduced at some times, but they generally can be counted on to add up. (XP-F-3)

The quote above highlights two important aspect of the collector-farmer relationship that can be quite common: first, a ‘helping’ relationship that goes beyond buyer and seller; and second a unique relationship that does makes it difficult, though certainly not impossible, for farmers to move from one collector to another based on higher prices or better services. When relationships of credit are

added to the mix (which should not necessarily be seen as relationships of exploitation)⁹ then the bonds between farmer and collector become even more durable.

5.1 Quality and grading

Thanh Hóa province has a locally developed grading system for luong, which grades the quality and associated prices for each culm based primarily based on length, thickness, straightness, and the uniformity of the culm, with *Phao* being the highest grade and the lesser three grades labeled as A, B and C.¹⁰ Farmers interviewed for the study all understood the grading system quite well, and claimed that there were able to differentiate at the time of cutting and selling in order to attain higher prices.

Collectors assess the quality of the culms that they purchase on the spot, and assign them a grade with the farmer present. The knowledge involved in the finer aspects of grading, especially for differentiating higher grades, is highly tacit. Farmers and traders both indicated that they were able to differentiate quality following years of ‘experience’ and at times had difficulty communicating exactly how this was done to interviewers.

Table 4: Grades and Prices in Quan Hóa

Culm type	Phao	A+	A-	B+	B-	C+	C-
Perimeter (cm)	>38	36-38	34-36	32-34	30-32	28-30	26-28
Length (m)	10.40	10.00	9.40	9.50	9.20	8.90	8.70
% of total	Uncommon	10%		27%		38%	
Price (VND) per culm	17,000	17,000	17,000	15,000	14,000	13,500	10,500

Source: Interviews, and Centre for Rural Development Staff

Most farmers indicated that the avoided cutting ‘young’ bamboo, instead focusing on mature culms that are easier to sell. Farmers and collectors alike state that they do not cut or collect “young” (non) bamboo, and that traders will generally reject this

“Young bamboo is not yet 1 year old, and then they will not take it. They (traders) can’t do anything with it, so will not take it at all” (TK-F-2).

At the same time, it is notable that most collectors define ‘young’ as bamboo which is one year old or less. This differs considerably from interpretations from other actors, who focus on the required supply of aged culms of 2-3 years to supply high value processors and encourage appropriate management and sustainability of the crop (Assmusen, 2010; Marsh & Ngo Viet Hung, 2009).

⁹ There is a copious literature on debt relationships and rural patron-client relationships that argues that it need not be seen as morally objectionable by the client, as it can provide security when the patron has a moral obligation to provide assistance during times of need. See: (Bardhan, 1980; Hart, 1986; Scott, 1972).

¹⁰ Though, interestingly, many farmers use numerical descriptors: 1,2,3.. rather than letters.

Some farmers reported collectors now buying smaller culms which they would previously throw away. In the past two to three years, demand for culms that would have otherwise been left at the roadside has risen (TK-F-1). Farmers' beliefs that they were cutting younger bamboo and that collectors were purchasing culms younger than then they used to was reaffirmed by workshop owners, who also claimed that it is getting more difficult to purchase aged "phao" bamboo.

Although the age of bamboo is significant, there are no official signals in the grading process to capture bamboo age – with culms less than one year being rejected, but no price premiums for culms in the three year range, which are highly desirable for many industrial uses such as the production of slats. There has been much discussion in recent years of introducing a Chinese system to mark individual culms by age; while the French NGO GRET has piloted such a scheme, with 100 hectares of bamboo forest currently marked by age, there has been limited uptake beyond farmers participating in their trials.

In general, farmers and collectors report culms being harvested younger and younger with significant impacts on the quality of bamboo being sold. While this may not be a significant challenge for many industrial users of bamboo such as pulp producers, it could provide a significant challenge to the establishment of high value processing that draws upon local resources. Furthermore, as quality goes down, it becomes increasingly difficult to push for higher prices paid to farmers. These challenges are intimately tied into some of the institutional issues described below, as well as to a trading system that is dominated by purchasers of low value, young bamboo culms, such as paper pulp and construction.¹¹

5.2 The role of the collector

Collectors play an important role in the lives of farmers, an importance which is indicated by the many roles that they play.

"The collectors are very important. If you are in need, then you can borrow money from the collector. In comparison to workshops, they are more important ... When in need, you can just go to the collector, and they will help you out. Then when you have some luong, you can cut it for them." (XP-V-3)

Local collectors usually own a local shop where they sell simple home supplies and food, such a rice, meat, and drinks. They at times trade in other items as well—one collector interviewed for this study, for example, was also trading in cassava. Perhaps most importantly, collectors are one of the only forms of informal credit available to most farmers. Therefore, embodied in one person, you often find the local shopkeeper, agricultural purchaser, and moneylender. This confers the collector with a considerable deal of power in the lives of farmers. Some poor farmers noted that their relationships with the collector was unique because they did not want to anger them – if they sold to another collector at times, then they may no longer be able to purchase based on credit from their regular buyer.

The role of debt

¹¹ While pulp purchasers seem to be willing to buy bamboo of almost any age, there are numerous standards in the construction industry that cannot be reviewed here.

When choosing whom to trade with, one of the key factors that enters into the farmer's decision making process is access to credit. While some farmers reported dealing with collectors on a cash-on-delivery basis, these seemed to be primarily wealthier households who did not need to rely on regular loans. For example, there was a stark contrast when discussing issues of debt with 'wealthier' groups of farmers in Venn diagramming and mapping sessions and with 'poorer' farmers.

Farmers borrow from the local collector, who is quite often one of the only sources of credit at the commune and village level. Farmers borrow for periods of as little as a few weeks to up to two or three months in advance. Prices for the luong are set when the culms are brought to the collector rather than at the time that the loan is issued.

While many of those interviewed for this study believed that debt played a role in depressing prices, there were few households who spoke negatively about the role of debt in their trade relationships. On the contrary, many farmers spoke highly of their ability to leverage their bamboo plots to receive access to informal finance: without bamboo as a form of collateral, many poor households would have much more limited access to informal debt. One local official interviewed for this study was quite concerned about the role of advance payments and debt in putting downward pressure on culm prices. He felt that the role of collectors as the only source of credit to many farmers put them in an unfair position which allowed them to exert considerable power over farmers. Interestingly, these views were not repeated by many farmers.

Households with significant financial resources from other activities, on the other hand, were better able to bypass local collectors. For example, one of the few Kinh (TK-F-3) households interviewed during the study noted that she was able to sell directly to trucks as they passed on the road. It is likely not a coincidence (though not testable here) that the same household had reliable access to institutional finance from the Việt Nam Bank for Agriculture and Rural Development, and also had not bothered borrowing from the bank in the past year because her income from luong and animal husbandry were sufficient for the household's needs. Similarly, in some cases, collectors rely on advance payments from larger traders in order to on-lend to farmers. In these cases, traders work through their own network of collectors in a monopoly relationship.

5.3 Social relationships

In many ways, the relationships between farmer and collector resemble classic patron-client relationships and interlinked transactions highlighted in much agrarian studies literature sort (See Hart 1986). At the same time, some of the differences are apparent, including farmer land tenure, credit relationships that do not extend to financing factor inputs, and credit arrangements not extending to labour contracting. At the same time, the strong social links that can exist exist between seller and buyer—especially in the case of poor farmers—can provide a form of “adverse incorporation” (Hickey & du Toit, 2007) , which, while providing security for the farmer, may constrain choices for the poor and in so doing also restrict their abilities to trade up to better prices (Wood, 2003).

During group interviews, there were at times open disagreements over whether the prices paid by collectors were 'fair' and in keeping with 'market' prices. It is notable that there was some correlation between those who had reasonable access to information and those who thought that prices were 'fair'. During interviews with a group of female farmers in Xuân Phú, for example, all women reported that they would regularly call friends and relatives in other districts to ask the price of bamboo. In this

case, the women were secure that they understood local prices and were getting a price that was generally in keeping with other rates. Those who knew little about prices outside of their village, and depended on the local collector for this information, were much more suspicious.

Understanding the role of debt and the role of the collectors within local social relations underscores some of the difficulties that projects have had in raising prices through collective action. For example, a local farmer cooperative in Thiết Kế established in 2006 with financing from the Canadian International Development Agency attempted to displace collectors by providing for a direct linkage between their members and large scale traders. In the words of the cooperative director:

A: Before, people preferred to sell their bamboo to the cooperative because we have good social policies for our membersFirst, our cooperative never tried to depressed prices for farmers, and has more transparent prices; it goes on today as well, the collectors try to push the prices down and people just have to bear it, because in truth there was nobody else to sell to, so they did not like it as much as working with our cooperative when it started. And afterwards, when the cooperative started working, they did not have to bear the [lowered prices] any more

Q: So the cooperative is more equal?

A: Yes, the collectors always want more money, so they depress the prices. (TK-CO-1)

The cooperative leaders further noted, however, that in the past year farmers have begun to sell to collectors once again rather than to the cooperative. The reason for this was that, following a failed attempt to establish their own processing workshop, the cooperative no longer has sufficient capital to pay farmers in advance for their culms. Without this key incentive, large numbers of members, and poor members in particular, began redirecting their sales to collectors in order to secure loans. For the past year, the cooperative has engaged in no trading activities. The failure of the cooperative underscores the specific role that collectors play in providing financial services in the area, and the difficulty that any intermediary will face when they consider bamboo collection and trade to be mere channels for distribution and exchange.

5.4 Bargaining

The tight relationship between many collectors and farmers, and the multiple roles that they play, leads to questions over what forms of bargaining over prices are possible between farmer and collector. Collectors' margins are generally quite low – they report making between 500 VND and 1,500 VND per culm, and these numbers are generally supported by conversations with farmers and local actors. In general, prices within each village and commune are fairly standard, with very limited variation in the same village or commune. For this reason, when selling to collectors, there is little opportunity for a farmer to bargain for higher prices by going to another buyer. Some farmers noted that it was possible to go to a different collector and get better prices, but these opportunities were few and far between. The opportunities to bargain further diminish when a farmer accepts advance payment for his bamboo, in which cases they are tied more or less uniquely to one collector. In the words of one farmer:

“There is already a price decision. For example, one culm of “luong 1” is the same here and over there—they’re the same. The decision has already been made. And this decision, only the traders and collectors seem to know.” (T-F-2)

Farmers in general understand very little about the nature of prices in the area. Poor male farmers in particular seem to have little information about market prices beyond their own village, and report deferring to collectors when it comes to deciding prices. It should be noted that, in general, poorer farmers residing in areas with fewer traders (such as those in Thiết Kế) seem to have less information than better off farmers.

While the interviews are far from conclusive, these findings indicate that social relationships are an important factor in communicating price information. Those farmers with a broader range of social relationships tend to have better price information and, interestingly, seem to be more satisfied with the prices that they receive. It is also notable that these same farmers, who are often among the wealthier households, seldom depend on collectors for loans, which offers them much more flexibility in timing their harvests and choosing buyers.

Farmers that sell to more than one buyer were asked who offered the best prices. In most cases, if there was any variation at all, it was standard and within a fairly narrow margin. In the words of one farmer:

“In general, what price is highest is uncertain. Sometimes, Mr. Tuan buys a little higher, and some months Mr. Khiet buys higher, and sometimes Mr. Ha buys higher. It is really not clear. What is clear is that their prices are really all the same. For example, when bamboo is prettier, then it is a little more, and sometimes in one month it is a little more.” (XP-F-1)

The number of buyers therefore seems to have had a small impact on households in terms of prices. When asked why this would be the case, most farmers explained that, to their knowledge, prices are set by the larger traders further up the supply chain. Therefore, there was little room for collectors to depress prices with competition no matter how many there were. Other farmers, a minority, but a strong minority, complained that they believed that collectors actively collude to depress prices.

This was a sentiment echoed by many local officials as well – that collectors conspired with each other and relied on relationships of debt to keep prices low at the village level. There was little evidence discovered for this while conducting research, though most collectors did admit to meeting other collectors from time to time to discuss their work. It is notable that those farmers who were least likely to complain of such practices tended to be those who had the most knowledge of prices outside of their village. For example, during a group interview with women in Xuân Phú, many of those women noted that they would on occasion call to ‘friends’ in other districts to ask about the current price of bamboo. This would inform their decisions to sell. In this case, the women believed that the prices offered at the village were most often fair, and that there were getting a good deal for their bamboo. However, in a similar interview with “poor men” the group noted that they had no knowledge of the prices of bamboo outside of their own village. They simply relied on the collector to inform them of the price when selling. These, unsurprisingly were also the most suspicious of local prices.¹²

While bargaining over prices between the farmer and the collector was not common, there was considerable space for bargaining over the *quality* of bamboo culms in question. As noted above there is a standardized system for grading bamboo by length and thickness that is well understood by farmers and collectors alike. Farmers commonly described collectors trying to “depress” prices by

¹² It is notable that this group interview resulted in a heated argument during which some men complained vigorously that collectors were cheating them, while a small minority argued in the other direction, obviously embarrassed that their fellow villagers would talk in this manner in front of outsiders. Also of note is that the

grading bamboo at a lower quality than they believed was fair. Collectors agreed that this did occur, but explained that they were at times subject to the same process when selling to traders.

“there is already a price announcement, so we can’t bargain at all; the only thing that we can do is differentiate” (XP-F-2).

Some farmers and collectors reported heated disagreements arising over the grades of different culms. Once again, however, the ability of farmers to bargain is shaped by their social position and relationship with the collector (i.e. whether there is debt involved) and also by their own knowledge of prices and grades. For example, one farmer, when asked about discussing grades with collectors, responded:

“Q: Are your family’s ideas [regarding quality and prices] sometimes different from the buyers [regarding quality and prices?]

A: Usually a little different, they usually reduce the number of culms that are graded as being good a little bit... but there really isn’t a problem, and we don’t argue about it.

Q: You don’t argue?

A: I really don’t know the different grades well, and they have their measurements, so I really have to bear it. If I think that the culm looks good, then I will ask them to classify it.” (TK-F-1)

The prevalence of relationships of debt, and inability of some farmers to raise the quality of their luong plantations, are also potential explanations for the rareness of bargaining between farmers and collectors over price.

5.5 Relationships between collectors and traders



Image 4: Luong traders

Long distance traders in the area that sell in the lowlands of Thanh Hóa and in other provinces tend to purchase largely from collectors. However, some households with significant financial resources from other activities said they were able to bypass local collectors entirely. For example, one of the few Kinh (TK-F-3) households interviewed during the study noted that she was able to sell directly to trucks as they passed on the road. This household had reliable access to institutional finance from the Việt Nam Bank for Agriculture and Rural Development, and also had not borrowing from the bank in the

past year because her income were sufficient for the household's needs (TK-F-3). It is also notable that social relationships, in particular ethnicity, play a role here as well (see conversation on page 23).

One can distinguish two forms of relationships between collectors and traders. Some large traders, especially those few that are located in the Bá Thước or Quan Hóa districts themselves, retain a number of collectors with whom they work on a monopoly basis. Their collectors sub-contract to them, and are unable to sell to other traders in the area, or those that come from other districts. These relationships tend to be long term, and are based, like relationships between farmer and collector, on debt. Traders lend money on a regular basis to collectors, who then on-lend to farmers. This money management was referred to by one trader as the most difficult aspect of her business.

Other collectors, in particular those with greater financial means, develop relationships with multiple traders, but seldom more than two or three. It was important, collectors argued, to "know" a trader, and they seldom traded with somebody to whom they had not been previously introduced.

5.6 Workshops

Bamboo workshops are generally valued by all local actors as signs of progress and development in the industry. The first workshops in the Quan Hóa and Bá Thước Districts opened in the early 1990s, producing simple products such as chopsticks and pulp for paper mills. As noted above: farmers highly appreciate the proliferation of workshops for providing better prices and purchasing different qualities of bamboo, but most often prefer to sell to collectors, who will offer payments in advance.



Image 5: Bamboo chopsticks

There are a small number of foreign invested workshops, most notably a large Taiwanese owned pulp company located in Xuân Phú Commune. The foreign investment, and the large scale that comes along with it, are noted as a key goal by many local officials in the area. Indeed, during conversations with local officials, some failed to recognize the smaller locally owned workshops. Indeed, one noted that there was only 'one' workshop in the area, pointing to the Taiwanese company. The remainder of workshops were not considered worthy of using the title.

Farmers value workshops for a number of reasons. First and foremost, they purchase a wider variety of culms than collectors and traders. While collectors usually require large and, more importantly, straight culms, workshops purchase a variety of culms, including small and crooked culms for lower value processed materials. It is notable that those workshops who are producing slats for bamboo

panel flooring require culms that are of high quality—most importantly, having reached an age of three years. But aside from these requirements for slats, workshops that have diversified into various other supply chains are able to purchase a wide variety of culms.

Interestingly, while some workshop owners complained that the quality requirements for slats were too onerous, and that it was becoming difficult to purchase the *phao* bamboo that is required for slats (hence driving some of their diversification), workshops were generally known by farmers for being willing to purchase even very young and very small bamboo. While traders generally eschew bamboo that is less than one year, or not straight—requirements for the construction industry—workshops were said to purchase everything.



Image 6: Sawing a luong culm in workshop

"If they're not good, then the collector and trucks won't take them, so I have to go to the workshop. The workshop will buy everything (XP-F-3)."

Therefore, workshops purchase both higher grade bamboo and lower grade bamboo, depending in part on what they are producing. For the higher grade bamboo, primarily used to produce slats.

"Before, we did not have a lot of experience, so we had to purchase a lot of poor quality and broken bamboo. Now that we are more experienced, we can evaluate the quality of luong, so if there is young luong we have to leave it". (XP-W-5).

It is difficult to overstate the degree to which farmers and local officials alike value local workshops, and see them as being beneficial to the development of their area. For farmers, they are a reliable purchaser of raw materials, and just as importantly, a potential (if not common) source of waged labour opportunities.

Many of the workshops previously supported by Mekong Bamboo have continued to diversify their product lines. One strategy has been to move away from slats for flooring to other higher volume products such as bamboo pulp and chopsticks. The rationale given for these changes was the stable markets for these products, compared to the fickle market for slats, which is characterized by unstable demand and few purchasers.

"These three products support each other. If we did not have slats, then we would not have chopsticks. If we did not have slats and chopsticks, then we would not have paper sawdust. We have to make a lot of products in order to use all of the luong culm. For example, the middle is used for nan, the top is used for chopsticks...and the price of paper sawdust is getting very high" (XP-W-5).

This diversification also assists workshops to deal with the long waiting periods for payment. For example, one workshop reported having waited more than half a year for payment from factories

purchasing their slats, and the billions of dong that they were owed were creating great hardships for them. Without alternative forms of financing, the workshops depend on other income streams in the meantime while waiting for their buyers. Recently established workshops previously assisted by the Luong Development Program led by Oxfam Hong Kong and GRET noted this as a significant concern, and have taken on other activities, such as pulp production, in order to offset the unstable demand for slat flooring. Indeed, one workshop has stopped producing slats entirely, now concentrating on developing sideboards which have a larger local market.

6 Institutions and Sustainability



Image 7: Women producing a Venn diagram

The final theme explored in this report concerns farmer perceptions of the institutions and actors that are involved in their bamboo cultivating activities. The primary tool for discussing institutions was group discussion exercises, though individual farmers were also questioned about the relevance of specific institutional actors to their lives. There were relatively few exceptions to the narrative that farmers felt that they received limited, if any, assistance for bamboo cultivation from the government or other actors. Important institutional actors were more often private actors, such as collectors, with agricultural extension officials playing a potentially important albeit limited role buffered by village leaders, who in practice provide the go-between between commune agricultural staff and villagers.

While farmers spoke of the importance of commune officials in particular, this decreased significantly when they were asked about their specific importance in relation to their luong activities. Many farmers noted that it used to be the case that the local government concerned itself with bamboo cultivation. As recently as 12 years ago, there was a ban, for example, on gathering shoots during a closed season in the Spring. The change in this policy recognized that farmers are the best qualified to decide on their own bamboo management practices, even if some local officials felt that the new open policy was damaging to bamboo stands (TK-G-1). In this case, however, the absence of government involvement was seen by some farmers as a positive thing. Indeed, one area that farmers spoke about was overall forest management rather than extension services. Forest officers were described as important actors, primarily in providing security for farmers whose luong had been stolen or in cases where there were disputes over land.

“Normally, the relationships [between farmers and forest officers] are very close, but not very frequent. The security of the area is very important—if I lose my luong, then I can report it, and they will try to solve the problem. The police are also very close to the rangers, though the rangers are mainly supervising things” (XP-V-3).

Many farmers, particularly when asked about their own plans for the future, spoke of their desire to receive more land to cultivate luong. In Thiết Kế Commune, some farmers spoke of rumours that there were plans to reallocate significant portions of local forest land, some of which is zoned as protected forest, to farmers.¹³ Indeed, the lack of accessible forest land in an area that is perceived to be rich in land resources was a common complaint of many respondents.

Farmers uniformly spoke of the lack of ‘attention’ that they received from government extension officers and other offices. Most farmers responded that they have never participated in any extension activities for luong cultivation, or had at very least only participated in one or two in the past ten years with no follow-up. Interviews with government extension agents, in particular two young agricultural extension officers, one man and one woman, underscored the limited resources available for training. And of these resources, most were directed at other activities, such as rice cultivation and animal husbandry. These extension officers noted that they have generalist agriculture and forestry education rather than specialist education on bamboo cultivation, and had limited access to new techniques outside of an extension project supported by the French NGO GRET and by a new German financed forest planting program. When asked about these various short-term inputs, one farmer responded that:

“They’ve given us some theory, and some plants, but they have not been back to check whether things are going well or not. There are not really close relationships between the project’s people and us local farmers – the relationships are still quite loose. We also have not heard any reports from the project about their activities. If the project cared, then they would report back to us.” (XP-V-3)

The lack of bamboo related training and services in the communes, then, provides a contradiction. On the one hand, bamboo is the primary crop in the area, and the government sees the future development of bamboo as being one of the pillars of continued economic and regional development. On the other hand, there are few services offered in this area, and agricultural extension seems overwhelmingly concentrated on the development of animal husbandry and other crops.

When queried, local officials respond to this contradiction by explaining that farmers have been cultivating bamboo in the area for generations, and that it is not something that they need support in. Priority areas for training are activities that are newer to the region, and in which farmers have less experience. The argument that farmers do not need assistance to cultivate bamboo may hold if one accepts the current low quality and low volume stands as the norm. Indeed, as reviewed above, farmers often value bamboo precisely because they do not need to invest significant time in learning and applying new cultivation techniques.

¹³ This was not confirmed by the Commune People’s Committee, who notes that there were no plans to allocate more land to farmers.



Image 8: Farmer in his bamboo plot

In general, most farmers believe that they use better management mechanisms than they did in the past. When asked whether methods of cutting have changed in the past ten years, one elderly respondent replied that:

"Perhaps we knew something about some management methods in the past, but nobody paid close attention to them; cut tall or short, nobody was very concerned; we only needed enough to meet the target requirements of the cooperative...But today, we only cut those culms that are ready, and those that are not ready, we leave, because they belong to us (XP-F-3)."

But it is also important to note that 'young' and 'old' bamboo in this case is a moving target. When asked if they cut bamboo 'young', many farmers responded that they do not, but further explained that they waited until a culm is at least one year old to cut. This is naturally far younger than the 2 to 3 years that is often suggested for proper plantation management and to supply the higher quality bamboo

demand by emergent industrial processing facilities.

While many farmers were quite evidently overharvesting, very few used fertilizer on a regular basis. In the whole of the group, only two farmers were found fertilize their bamboo plots on a regular basis. In the words of one collector, responding to concerns of overharvesting:

"But they don't have any money, so they must cut their culms. They know well how to take care of it, and know that if they wait until it is three years to cut, they can get a better price for their bamboo. But in practice their families are very poor, so they do not have enough money for their day to day expenses, so they must cut. So if you try to teach them to manage their plots better, but do not provide loans or provide some other kind of work so that they can have some money, then they must still cut. So while they may know what to do, but because of their life circumstances, they cannot do it." (TK-CO-1).

The story told by farmers, extensions officers, and collectors alike is one in which the quality of forests is spiraling downwards.¹⁴ Farmers know very well that their techniques are sub-optimal, but are unable to wait to regenerate their plots because of the need to cut bamboo on a regular basis—and often quite young—in order to pay for day to day expenses. This challenge was reiterated across the board, in interviews with farmers, collectors, government officials and in focus groups. In one mapping exercise, one respondent noted that:

"In general, if a family's life is stable, then the quality of their luong plots is also better. Families with difficulties often cut luong that is only one year old. They then only have small culms, and can't wait for large ones to grow. Because they have difficulties, they must continue to harvest" (TK-M-1).

¹⁴ This is in keeping with a recent Environmental Impact Assessment commissioned by PI and with recent comments made by Chinese experts visiting Thanh Hóa. See (Assmusen, 2010).

The suggestion offered by farmers was that if they were to regenerate their stands to an acceptable level, they would need to develop ‘other activities’ as alternative sources of income, especially for the two to three years that would be needed to redevelop their bamboo stands.

“Because we believe that luong can bring us one thing, and that is keep us alive, there has not been anything from luong to make people become rich from luong. I’m not talking about the people who have gone into trading because some of them have become richer from luong, and now the people in the workshops. But for farmers, most only have enough to take care of ourselves, and sometimes don’t have enough for the every day, so it does not help us to become rich....in reality, luong cannot really help the peasants become rich, because luong here only really feeds our daily economic needs only” (TK-F-4).

In short, farmers are well aware that paying closer attention to their luong, including pruning and applying fertilizer, would increase its value and by extension their own incomes. This issue was quite uncontroversial, and was something well understood by farmers, collectors and government officials alike. At the same time, farmers stated that they did not have the ‘conditions’ to apply the good practices that had been introduced from outside, or in some cases, that they had known all along.

“I don’t really have any problems at all. It’s really easy to sell. If I can’t sell to one person, then I’ll just sell to another – that’s all. The only problem is that I want to care for it more, but I do not yet have the conditions to do so. For example, I would like to hire some people to prune it and apply fertilizer, but I have not been able to yet. So my idea is that I would like to care for it, but have not had a little opportunity. So it’s very easy to sell, but the prices are very bad because it has not been developed.” (XP-F-1).

Most actors—with the exception of some collectors and traders—were quite concerned about the sustainability of local bamboo resources and the potentially harmful impacts of these sustainability challenges on farmer incomes. What is perhaps most significant is that very few respondents saw potential in tackling these problems through extension and training. Rather, it was the lack of other income generating options that was commonly mentioned as the key constraint to improved bamboo cultivation methods.

7 Conclusions

The nature of this qualitative study has been interpretive rather than explanatory. It is therefore difficult to offer formal conclusions. However, the report highlights five themes that are worthy of further reflection:

- a] Farmers value bamboo for the security that it provides and for giving them with access to a stable cash income. Bamboo farmers need to be seen as more than potential entrepreneurs who maximize their income by responding to opportunities. Instead, they should be seen as security conscious households who also try to minimize risks while also eking out a living in the present day.
- b] A robust local trading system exists for luong. While there exists very little local price competition among collectors, Most farmers feel that the prices that they receive from collectors is ‘fair’. However, some farmers and local government official complain of depressed prices and slow price gains in recent years.

- c] The role of credit in trading relationships is of particular importance for poor farmers. Selling bamboo is the only source that most households have for short term borrowing for consumption needs. This not only provides an important social relation between collectors and farmers, but also creates two barriers to entry for would-be collectors, including the need to enter into existing relationships between collectors and farmers, who may be hesitant to move to a new collector when their existing collector offers regular loans, and more importantly the fact that would-be collectors require a significant amount of capital to enter into trading in the first place.
- d] Many of the poorest farmers find themselves to be unable to invest in their bamboo plots, as they require regular income from regular harvests. Waiting two to three years for their bamboo plots to regenerate and culms to age is a difficult option for these farmers. The poor households that are the target group of PI's interventions are in many ways the least able to respond to the needs of new 'high value' processors. There may be a need for some form of support or subsidy in order to bring poor farmers into a high value processing supply chain.
- e] Finally, local institutional support, while rhetorically strong, is quite weak in practice. Agricultural extension largely ignores luong in favor of centrally designed and managed packages for other strategic crops, and farmers report almost no support in technology development aside from that which can be offered on a small scale by Non-Governmental Organizations and projects. The fact that local government does not see support to the bamboo industry as its responsibility further puts it at a disadvantage, as other countries (China) and other local governments in Việt Nam have much more robust policies to draw investment and coordinate businesses in key industries.

These findings should be read understanding that they are fundamentally drawn from farmer interpretations and narratives, and will therefore be of most significance when put into conversation with other forms of data. However, even taken alone, they do offer some potential direction for future practice. First, there seems to be a clear need to invest more in improving farmers' bamboo plots, especially among poor farmers. There is limited evidence from this study that poor farmers will be able to respond to price signals from higher value processing without some form of financial or technical assistance. Experience from China (Chen et al., 2003) indicates that there is a strong role for local government in providing these services, though there could be other methods, such as contract farming, that are worth exploring. Secondly, a stronger focus on developing *local* capacity in processing through continued support to pre-processors and the potential establishment of larger scale processors closer to the source of bamboo would have a significant impact on the local perception of the bamboo industry. Keeping processing jobs close to the farmers, and allowing local governments to see the fruits of processing directly, would offer local people a much greater stake in the industry. The importance of co-location of farming and processing activities is indeed another lesson that has been gleaned from the Chinese experience, and is one that PI should continue to promote.

Aside from these potential programming lessons, there are a small number of other analytical questions deserving of future research by PI. First, this paper points to some challenges in the local grading system with regard to aged bamboo. A better understanding of the grading process would be immensely beneficial for helping to understand how better prices may or may not transfer to farmers. Second, the report along with others (Assmusen, 2010) points to significant challenges to the sustainability of bamboo resource. A better understanding of how bamboo fits into the local agro-ecology of the region could aid in designing interventions that build a sustainable resource while contributing to farmer incomes.

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Annex 1:Key Questions and Tools

Question	Probing Questions	Target Group	Tool
How does bamboo fit into farm households' accumulation strategies?		Farming Households	Interview, life history analysis
How has the family's life changed over the last 2 years?		Farming Households - man and woman	Interview
How has bamboo contributed to these changes?	Probe about whether bamboo has led to changes in income or livelihoods activities	Farming households - man and woman	Interview
How does bamboo compare to other sources of income or livelihoods activities	What makes bamboo a better or worse source of income than other crops/livelihoods?	Farming households - man and woman	Ranking exercise / Interview
How does inter-household decision making impact bamboo?			
Who is involved in bamboo work in the family? What do they do? How much time is spent on bamboo gathering and transportation	How does this differ between men and women?	Farming households - man and woman	Seasonal calendar
Who decides whether and when to sell bamboo?		Farming households - man and woman	
Who decides what money earned from bamboo is spent on?	Does bamboo tend to be used to pay for specific expenses?	Farming households - man and woman	Interview
Who keeps money from bamboo selling?		Farming households - man and woman	
How do bamboo incomes affect relationships between husband & wife, women's position in the family and women's life (including access to health & education)?			

When and why do farmers chose to cut bamboo?		Farming households	Seasonal calendar / calendar
How are decisions to cut related to lifecycle events?		Farming households - man and woman	Seasonal calendar
How are decisions made to cut?	Based on price? Based on life-cycle events such as weddings, funerals?	Farming households - man and woman	Interviews
How are relationships between farmers and buyers structured? How as PI changed this?			
How do farmers/collectors choose with whom they trade bamboo?	Based on prices? Social relationships? Access to information?	Farming households - man and woman	
How different have the number of buyers changed over the last 2 years? How have these changes affected your decisions on harvesting/selling bamboo? How have these changes affected bamboo prices?		Farming households - man and woman	Interview
How has the demand for bamboo changed over the last 2 years? How has family responded to these changes?		Farming households - man and woman	Interview
Who decide the selling price of bamboo?	What factors affect selling prices (distance to main roads/workshops, culm quality, etc.)? Do farmers actively bargain?	Farming households / traders / collectors	Venn diagrams / network diagrams
How different are prices paid by different buyers?		Farming households - man and woman	Interviews (may want to use some sort of sketch diagram)
How do farmers assess the quality of bamboo?	Does quality - length, age, etc. impact on	Farming households / traders /	

	decisions whether or not to cut?	collectors	
What services do buyers offer		Farming households - man and woman	Interview / Market Map / Venn Diagram
How long have farmers worked with the same buyers?		Farming households - man and woman	Interview / Market Map
What do farmers know about the trading practices of the buyers with whom they work?	Do farmers know what their bamboo is used for? They do know how much it sells for at different points along the chain?	Farming households / traders / collectors	Interview / Market Map / Venn Diagram
How do farmers manage relationships with buyers?	Verbal contract, pay on delivery, etc?	Farming households / traders / collectors	Interview / Market Map / Venn Diagram
What constraints do farmers face in selling their bamboo?		Farming households - man and woman	Interview / Market Map
What are households future plans?			
Do farmers plan to plant more bamboo in the medium or near future?		Farming households	Interview / oral history
Do households plan to expand their bamboo activities into land?		Farming households	Interview / oral history