

# briefing

No 15

## Facilitating Market Integration of the Upland Poor into Bamboo Value Chains: Upgrading Strategies for Local Producer Groups

### Introduction

The expanding global market for bamboo flooring brings new opportunities for local upland communities, yet it also poses challenges for emerging market players. Existing barriers preventing small-scale preprocessors from entering specialized market niches include asset specificity, market volatility, and scale.

Diversification of production can help small-scale producers overcoming the barriers of asset specificity and market volatility. The concurrent preprocessing of several bamboo products maximizes returns, since it reduces the rate of waste and rationalizes the utilization of culms. At the same time, product diversification mitigates the risks linked to asset specificity and limits dependence on buyers. Products obtained from using various qualities of bamboo and separate sections of the culm can provide access to different markets, thus reducing the negative impact of demand and price volatility specific to each business line.

The market assessment has identified some valuable options for diversification, which can be combined to offset the potentially negative effects of specialization. Given the current level of prices and demand, the following options offer the most profitable opportunities to the poor: preprocessing of chopsticks; preprocessing of slats for laminated bamboo floorings; and preprocessing of chips used for pulp and paper-making. While global demand for these products is growing fast, the level of capital investment required to set up the preprocessing businesses should be affordable for poor bamboo growers. It should however be noted that prices are very dynamic in the bamboo value chains, and there is no way to ensure that the proposed options might still prove profitable in the future.

Diversification and productivity should be further promoted through the development of products, services and technology that cater to small-scale processors. Services that could have a direct effect on productivity at a relatively low cost should be explored first, namely: quality control; research and development; and financial services for the capital costs of processing equipment. Rather than being directly involved in the provision of services and inputs, policymakers and development agencies should act as external facilitators. Their main aim should be the creation of a supportive environment able to catalyse formal agreements between private actors in the bamboo value chain for the market-oriented provision of adequate inputs, services and technology. The market-based integration of actors within the bamboo value chains can prove the most cost-effective and sustainable way to increase productivity, promote diversification and ultimately exploit the opportunities for poverty reduction that are emerging in the bamboo value chain.

Policymakers have an important role to play also in levelling the playing field for small-scale entrants in the bamboo value chain. In particular, informal costs linked to unofficial transport fees and widespread corruption are negatively affecting small-scale producers in their capacity to profitably integrate with the bamboo value chain.

Finally, collective action can help small-scale producers achieving adequate economies of scale, thus promoting their integration with the bamboo value chain. However, the models of collective action implemented to date tend to target bamboo producers and traders separately. While traders' groups appear more successful at this stage, they generally include only better-off producers and have a limited capacity to stimulate pro-poor dynamics in the bamboo value chain. Improved forms of collective action should try to build upon

the existing informal partnerships between traders and producers, overcoming the artificial divisions between the two groups. New forms of collective actions able to leverage the deep relationships of trust between local traders and producers could prove more successful in combining profitability with inclusion of the poor.

The rest of the executive summary briefly presents the main findings from the study, and outlines the interventions and levers suggested to address the identified constraints.

## Main Findings

### *Assessment of market opportunities for bamboo producers*

Expanding global bamboo value chains represent a promising opportunity for poverty reduction and economic development in Thanh Hoa Province. However, they also pose challenges for emerging small-scale market players. Small-scale processors are not ready to enter the most specialized market segments due to their small scale, the current price volatility, and the need for specific processing equipment.

The research shows that value chain-level upgrading strategies result in a push toward specialization of bamboo producers, resulting in a narrower set of functions within the value chain. Under this trend toward specialization, the buyer-retailer and exporting company create relationships that constrain bamboo producers to improve profit margins and minimize the risks related to supply. In this context, the study reveals that the emerging enterprises that are able to participate successfully are those that commercialize diverse product lines and manage to minimize waste from preprocessing.

Based on current conditions, the analysis suggests that bamboo growers would benefit from subdividing the bamboo culm and commercializing subdivided products through different market channels (“multiple output linkages”) when compared to individual farmers selling culms by the bulk on the open

market. The research team found that the products with the higher potential to generate profits for small-scale enterprises are the following: preprocessing of chopsticks; preprocessing of slats (used for laminated bamboo floorings); preprocessing of chips (a semi-processed product for pulp production); and preprocessing for pulp and paper. These business activities present the most direct route to profit-making opportunities for the poor.

From the feasibility assessments of multiple preprocessing options, slat processing presents the single most profitable business opportunity for primary small-scale processors. However, slat processing presents a high level of asset specificity and market risk. Therefore, the feasibility assessments advise that the combination of preprocessing activities for bamboo-laminated flooring products and bamboo chopstick products could create the more substantial income increases for farmers.

Most preprocessing products for global buyers have been recently introduced into the local market. As preprocessors establish and modify their operations, the price volatility of semi-processed products becomes substantial. Variations in the price of semi-processed products can have a substantial direct effect on the viability of small-scale businesses. Thus, the profitability of the proposed options is advised to be reassessed before undertaking future actions.

### *Vertically integrating bamboo producers in the bamboo value chain*

Integrated planning for the systematic adoption of input services and appropriate technology arise from the study as viable intervention options. Integrating market relationships among actors within value chains can be the most cost-effective way of increasing productivity and reducing poverty. Long-term joint production planning, downstreaming value-added services from buyers to producers, and promotion of good management structures among participants of the value chain are some of the immediate interventions that policy planners in the two provinces should explore.

Intra-value chain provision of input services and dissemination of appropriate technology for producer groups already exist. However, according to our findings, these markets have room for improvement. With the notable exception of financial, credit and transportation services, inputs markets that cater to small-scale preprocessing enterprises remain fairly underdeveloped. The actual levels of usage of input services were found to vary among the myriad types of market actors.

The study found that the public sector and business associations are still the main service and input providers for processors in the study areas. Provision of services by these actors is subsidized (not commercial) and carries negative consequences for competitiveness within the service provision market. Some constraints to the further development of the key inputs markets were found to be: distortions in input markets; lack of awareness among prospective input users of the availability of services; and a lack of understanding among prospective users of procedures for loan applications. In addition, the cost of hidden transport fees and corruption is negatively affecting critical input services such as transportation. The nature and extent of these constraints should be further analyzed, as solutions addressing the existing barriers might represent strategic levers to increase income for poor bamboo producers.

In broader terms, constraints were identified for both the demand and supply side of critical inputs. On the supply side, the intervention of governmental agencies and business associations in providing critical inputs distorts the market. For example, members of business associations perceived that market information services provided to them were of low quality. The lack of alternative providers and the centralized way of formulating these services result in a lack of service provision competitiveness. Moreover, the lack of awareness among prospective customers regarding the availability of market information services seems to be constraining their demand. Finally, a lack of understanding regarding procedures for loan applications among prospective customers is constraining demand within credit and financial markets.

This is especially relevant for loans above 100 million dong.

On the supply side, the identified constraints were numerous. Most input service providers claimed that demand was almost insignificant. Most actors were perceived as being small-scale and dependent on buyers. Second, some providers of services claimed that remote areas lacked retailing networks, by which their product and services could be made available to end users. As a result, the coverage of their services was low. This was especially the case for providers of chemicals and other processing supplies. Third, the cost of hidden fees and corruption is negatively affecting critical input services such as transportation. Finally, providers of technical training stated that the lack of qualified staff in remote areas prevented them from providing services of dependable quality.

### *Collective Action*

Collective action can help small-scale producers achieve adequate economies of scale and can promote their integration with the bamboo value chain. However, collective action can bring benefits to poor participants in the bamboo value chain only if it results in expanded access to new income opportunities while offering effective risk-sharing mechanisms that include the poor. The results of this study indicate that improved models for collective action should be explored.

*Forms of collective action aimed at achieving the profitable integration of the poor in the bamboo value chain should include both traders and smallholder producers.* The two models of collective action implemented to date (producers' cooperatives and traders' groups) have targeted the two groups separately. Both models have therefore failed to promote real cooperation at the local level of the bamboo value chain. On the one hand, producers' cooperatives have tried to act more as competitors to the local trading system than as partners in local-level upgrading strategies addressing both small local traders and bamboo producers. On the other hand, traders' groups appear to follow a strictly profit-driven logic which, given the rising level of competition in the local preprocessing

system, usually translates into an attempt to reduce labor costs and bamboo purchasing prices.

The separation of traders and producers ignores the existence of strong complementarities between the two groups that could instead become the base from which to build more effective forms of cooperation. Moreover, producers and traders are bound by deep relationships of trust which could be formalized and transformed into a valuable asset for achieving a profitable integration within the value chain.

Failing to build an effective system of cooperation between traders and producers misses a valuable opportunity to:

- Unlock scarce capital immobilized in the informal credit system, which could be employed more profitably to start preprocessing activities at the local level;
- Unlock the social capital embedded in the relationships of trust between traders and producers, which would allow the building of effective risk-sharing and quality control systems based on low transaction costs. These in turn could become valuable assets for profitably participating in the value chain; and
- Pool scarce local resources which would allow traders to contribute valuable skills and extensive marketing contacts and producers' groups (both cooperatives and more informal, smaller groups) to provide access to a well-coordinated and reliable supply of bamboo. This pooling of resources would also provide a higher level of political support for emerging small-scale preprocessing enterprises, since local governments perceive these groups as a preferred development model.

Future forms of collective action should try to forge partnerships between traders and producers, overcoming the artificial divisions between the two groups. New forms of collective actions leveraging the existing

relationships of trust between local traders and producers could prove more successful in combining profitability with inclusion of the poor.

## Conclusions and Policy Recommendations

The study concludes that, to catalyze pro-poor processes, policy makers and development agencies need to act on eight factors (levers) that fall within two general areas:

1. Factors affecting the dynamics and markets of the bamboo industry; and
2. Operating factors affecting clusters of small-scale processors of bamboo.

The suggested solutions focus on identifying locally based, market-oriented mechanisms that can prove sustainable since they generate a system of incentives shared by different groups of actors (producers, local traders, and preprocessors). The proposed interventions should leverage as much as possible the participation of private sector actors within the wider context of the value chain. Policy makers, development agencies, and practitioners should play an external supportive role by creating an enabling environment for small-scale producers groups.

### *Factors affecting the dynamics and markets of the bamboo industry*

According to the results of the study, policy makers should act to promote the following objectives in the bamboo industry:

1. **Increasing foreign investment and exports.** Policy makers and development agencies should continue to promote foreign investment in the bamboo industry to increase the exposure of Vietnamese organizations and firms to best international business practices. Viet Nam is a competitive supplier of bamboo to the global market, with bamboo prices at 50% of the cost of the People's Republic of China (PRC) and labor costs at a fifth of those in the PRC. Exports of bamboo to international markets bring increased pressures for greater

productivity and results in new market opportunities for local firms.

2. **Levelling the playing field for small-scale entrants.** Local policy makers and planners should level the playing field so that small-scale processing enterprises have more opportunities. By doing so, policy makers and planners will provide greater incentives for processing raw bamboo material closer to the source, bringing transportation savings and technical efficiencies to the entire production system. Policy makers should enable mechanisms for information flows related to business opportunities and economic returns of different preprocessing options. Improved access to market information will reduce information asymmetry for small players and will result in increased pressures to achieve enhanced productivity in the entire market system. Reducing the cost of corruption and other market distortions will remove existing constraints for small entrants to the market.
3. **Promoting formal arrangements between market players.** The integration between producers and other value chain actors through formal business arrangements is especially important for developing profitable and specialized business lines such as laminated bamboo flooring products. In specialized business lines, the risk of asset specificity coupled with the high variability of profits inhibits productivity. Options for intra-value chain upgrading of producer groups in terms of product lines, functions, and processes should be explored. Potential intervention levers include promoting the adoption of appropriate technology, increasing the rate of utilization of raw materials and other processing inputs, and favoring the adoption of shared quality management mechanisms. Local policy planners should play an external supportive role, creating an enabling environment that promotes formal arrangements between producers and other actors in the bamboo value chain.

4. **Developed markets that cater to processing enterprises.** Products and services tailored to small-scale processors are still lacking in the local bamboo value chain. Increasing local access to these products and services through supply chain development would create a more enabling environment for small-scale processors. Local policy makers and planners should play a facilitating role to catalyze the development of markets for goods and services that cater to small-scale enterprises. In particular, policy makers and development agencies could create conditions that favor the diffusion of microleasing contracts between processors and buyers to finance the upgrading of specialized product lines. Upgrading specific product lines could generate positive results for adjacent businesses through the spillover of technical capacity.

#### *Factors affecting internal operations of small-scale bamboo processors*

The study results indicate that future interventions should act upon four policy levers that affect clusters of small-scale processors of bamboo products to achieve the following:

1. **Improving productive processes.** Small-scale processors should adopt appropriate processing technologies and use productive inputs. Development agencies and practitioners could stimulate demand among processors for productive inputs, such as chemicals in their operations, through communication, technical training, and promotion. Improved production methods will increase the productivity of small-scale processors.
2. **Diversifying product lines.** Future interventions should devise mechanisms to support diversification of product lines and increase the raw material utilization efficiency rate among small-scale bamboo processors. Policy makers could create platforms for providing technical assistance to producer groups willing to implement improved processing methods

and adopt new product lines. Research into new industries that reduce waste and increase technical efficiencies should also be part of this external assistance. These measures will enhance productivity by allowing processors to increase the utilization rate of the bamboo culm. In addition, diversification will mitigate the processors' risk related to concentration stemming from participation in specialized product lines.

- 3. Integrating producers into bamboo value chains through improved models of collective action.** National- and local-level policy makers should create institutions that facilitate the integration of bamboo producers into the bamboo value chain as suppliers of raw materials, shareholders, and employees. This could be achieved by creating a policy environment that promotes synergies between traders and cooperatives via shareholding in jointly operated preprocessing enterprises. National- and local-level institutions should facilitate the upgrading of bamboo growers to the preprocessing stage, entry of traders into the managerial boards of shareholding preprocessing companies, establishment of market-based arrangements with private enterprises to implement ex-ante quality control systems and provide better services. At the same time, synergies between bamboo producers' organizations and local governments (or other external actors) are required to address covariant risks. Some emerging mechanisms that could support synergy-based partnerships are joint production plans, quality control, agricultural intensification, and forest certification among producer groups and primary processing groups. These measures will increase nonfarm sources of income for poor farmers. If formalized partnerships between bamboo producers' organizations and local traders

are effectively promoted, new marketing channels will be developed by traders while cooperatives and other producers' groups will be seen as reliable market actors. These measures will unlock quasi-credit capital from the existing informal arrangements between bamboo growers and traders. The higher level of coordination between bamboo producers' can increase productivity through intensified cultivation and harvesting, and enable buyers to secure long-term supplies of bamboo for specialized business lines.

- 4. Developing markets that are responsive and accountable to organizations and firms.** Finally, future interventions should promote organizational structures among processors which are inclusive of producers, responsive to market conditions, and accountable to producers. This could be achieved by improving organizational functions, tasks, and governance of the preprocessing groups. This would include putting in place decision-making and representation mechanisms inclusive of farmer shareholders, appointing managerial staff who are capable of participating in complex market systems, and ensuring the provision of value-added services, such as insurance and credit, for farmers. Accountability from managers to farmer shareholders is an imperative. In addition, development agencies and practitioners should foster formalizing specific risk-management mechanisms through the use of internal insurance funds, and reducing covariant risk through diversification and the intervention of external actors (i.e., microinsurance). These measures will also help increase nonfarm sources of income for poor farmers, unlock idle social capital, and generate trust between processing enterprises and farmers.

## Summary of Recommendations

	Policy levers	Specific measures	Expected benefits
<b>I. Industry Dynamics (Value chains)</b>	1. (Continue to) promote foreign direct investment in the local bamboo industry and exports to international markets	<ul style="list-style-type: none"> <li>i) Increase exposure of local organizations to best processing and production practices</li> <li>ii) Promote the bamboo sector in Viet Nam as an investment opportunity for foreign companies</li> </ul>	<ul style="list-style-type: none"> <li>• Enable access of local organizations to global markets</li> <li>• Transfer competitiveness to local organizations</li> <li>• Bring increased pressures for greater efficiency and productivity</li> <li>• Bring increased capital investment into the sector.</li> </ul>
	2. Level the playing field for small-scale entrants	<ul style="list-style-type: none"> <li>iii) Mechanisms for information flow, transparency, and formality with regard to opportunities, uses of bamboo, and grading</li> <li>iv) Mechanisms for insurance/capacity to bear contingencies of producers</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce information asymmetry for producers</li> <li>• Reduce corruption and costs associated with informality and market distortions for all actors in the chain</li> <li>• Release working capital from farmers and traders for productive investments</li> </ul>
	3. Facilitate integrating arrangements between producers and other members of the value chain	<ul style="list-style-type: none"> <li>v) Formal arrangements between processors and buyers for developing specialized business niches</li> <li>vi) Upgrading producer groups, product lines, functions, and processes, including adoption of appropriate technology, increased utilization of processing inputs, and shared quality management mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce the risk of asset specificity for producers associated with adopting specialized product lines</li> <li>• Increase productivity of processors through higher rate of utilization of raw material</li> <li>• Spillover of increased capacity for local organizations to develop adjacent local business lines</li> </ul>

	4. Develop markets for goods and services that cater to value chain players and small-scale enterprises	<p>vii) Adapt and engineer appropriate products and services for small-scale processors through product research and development</p> <p>viii) Develop supply networks to increase availability and distribution of productive inputs at the local level.</p> <p>ix) Facilitate market-based leasing contracts to finance upgrading of specialized processing lines</p>	<ul style="list-style-type: none"> <li>• Improve the enabling operating environment for emerging processing organizations</li> <li>• Increase productivity of small-scale processors through upgrading of product lines and technical processes</li> </ul>
<b>II. Internal operating factors for small-scale processors (clusters)</b>	1. Increase adoption of appropriate processing technologies and use of productive inputs	i) Stimulate demand and adoption of productive inputs such as chemicals among processors through communication, technical training, and promotion	<ul style="list-style-type: none"> <li>• Increase productivity of small-scale processors through improved productive methods and improved quality of output</li> </ul>
	2. Diversify business product lines and increase efficiency rate of utilization of raw materials	<p>ii) Provide technical processing assistance to producer groups to try improved processing methods and adopt new product lines</p> <p>iii) Undertake research into new industries that reduce waste and increase technical efficiencies</p>	<ul style="list-style-type: none"> <li>• Increase the rate of utilization of the bamboo culm among processors</li> <li>• Mitigate the risk for processors of concentration stemming from participating in specialized product lines</li> </ul>
	3. Integrate producers into the value chain as suppliers of raw materials, shareholders, and employees	<p>iv) Develop synergies between traders and cooperatives through shareholding in jointly operated preprocessing enterprises</p> <p>v) Upgrade members to the preprocessing stage; support traders entry into the managerial board of shareholding preprocessing companies</p> <p>vi) Promote partnership with private enterprises</p>	<ul style="list-style-type: none"> <li>• Increase nonfarm sources of income for poor farmers</li> <li>• New marketing channels opened up by traders; cooperatives are seen as more reliable market actors</li> <li>• Members improve their knowledge of value chain dynamics and are able to make better marketing and production</li> </ul>

		<p>to implement ex-ante quality control systems and provide better services; promote synergies with local governments and external actors to address covariant risks</p> <p>vii) Develop mechanisms for joint production plans, quality control, agricultural intensification, and forest certification between producer groups and primary processing groups</p>	<p>choices according to their interest; stronger participation in an initiative perceived as potentially successful</p> <ul style="list-style-type: none"> <li>• Unlock quasi-credit capital from existing grower and trader arrangements</li> <li>• Increase productivity through intensified cultivation and harvesting</li> <li>• Secure long-term supply for specialized business lines</li> <li>• Local level upgrading; improvement in locally available market-oriented services</li> </ul>
	<p>4 Promote organizational structures of processors—inclusive of producers—that are responsive to market conditions and accountable to producers</p>	<p>viii) Improve organizational functions, tasks, and governance of preprocessing groups including:</p> <ol style="list-style-type: none"> <li>a. Decision-making and representation mechanisms inclusive of farmer shareholders</li> <li>b. Management staff capable of participating in complex market systems</li> <li>c. Existence of value-added services for farmers such as insurance and credit</li> <li>d. Accountability to farmer share-holders</li> </ol> <p>ix) Formalize specific risk-management mechanisms through internal insurance funds; reduce covariant risks through diversification and intervention of external actors (for example microinsurance)</p>	<ul style="list-style-type: none"> <li>• Increase nonfarm sources of income for poor farmers</li> <li>• The existing trust relationships are internalized by the shareholding enterprise; higher trust in the business skills of the managerial board enlarged to traders; increased commitment</li> <li>• Unlocking of latent social capital; trust internalized by the shareholding processing enterprises, which helps implementation of low-cost coordination and monitoring systems</li> </ul>

This briefing paper is one of a series produced by the Regional Technical Assistance Project "*Making Markets Work Better for the Poor*", which supports activities in Viet Nam, Lao PDR and Cambodia. The purposes of the project are to (a) conduct analytical work on the functioning of markets and the extent to which the poor are able to benefit from them, and (b) to build capacity to support pro-poor market development through research activities, networking and the promotion of policy dialogue in the three project countries. The project is co-financed by the Asian Development Bank (ADB), ADB Institute and the UK Department for International Development (DFID). More information on project activities is available at [www.markets4poor.org](http://www.markets4poor.org).

**For more information, please contact:**

ASIAN DEVELOPMENT BANK  
Vietnam Resident Mission  
"Making Markets Work Better for the Poor"  
Unit 701-706, Sun Red River Building  
23 Phan Chu Trinh Str., Ha Noi, Viet Nam  
Tel: + (844) 9331374  
Fax: + (844) 9331373  
Website: [www.markets4poor.org](http://www.markets4poor.org)