







Introduction

Thanh Hoa province has the largest area of luong bamboo in Vietnam, with over 80,000 hectares of natural bamboo forest and 71,000 hectares of planted bamboo. The global market for bamboo is expanding rapidly. Bamboo is increasingly being used for furniture, building materials and other consumer goods as an esthetic and sustainable alternative to wood. Its relatively fast growth rate, high carbon sequestration potential and strong resilience to extreme weather events make bamboo an ideal crop for smallholders and conscious businesses alike. If managed carefully, growth of the bamboo industry could have significant positive impacts for the economy, people and environment of Thanh Hoa.

Despite the strong potential, investments in Thanh Hoa's bamboo sector are lagging. The manufacturing industry runs on outdated technologies and produces end products with limited added value. The lack of attention for the sector has led to mismanagement and degradation of the provinces bamboo forests, as forest owners cut young trees prematurely, or replace the bamboo by rubber trees which are considered more profitable.

To encourage sustainable forest management and attract investors, the province developed a Bamboo Development Action Plan, which was officially adopted in February 2016. The document details measures to support sustainable cultivation, processing, business development, and an enabling policy environment up to 2020. The USAID Vietnam Forests and Deltas Program supported the development of the Action Plan, and provides technical assistance for implementing actions in the field.

Bamboo – The ideal sustainable resource

Luong bamboo is an ideal plantation crop, it provides high yields, matures rapidly and is resilient to drought and tropical storms. In addition, bamboo is effective in soil protection and erosion control. If properly managed, bamboo forests can store up to 45 tons of carbon per hectare, which is in the range of other fast-growing tree species. The bamboo industry contributes to Thanh Hoa's growing economy and sustains the livelihoods of thousands of small-scale farmers living in the poorest upland areas. The increasing global demand for bamboo offers a great opportunity for increasing production and adding further value to the bamboo crop.

The Bamboo Development Action Plan

The Bamboo Development Action plan of Thanh Hoa has been developed with the support of the USAID Vietnam Forests and Deltas Program, the International Bamboo and Rattan Research Association (INBAR), and a task force of industry, banking, governments and other relevant stakeholders. The Action Plan aims to:

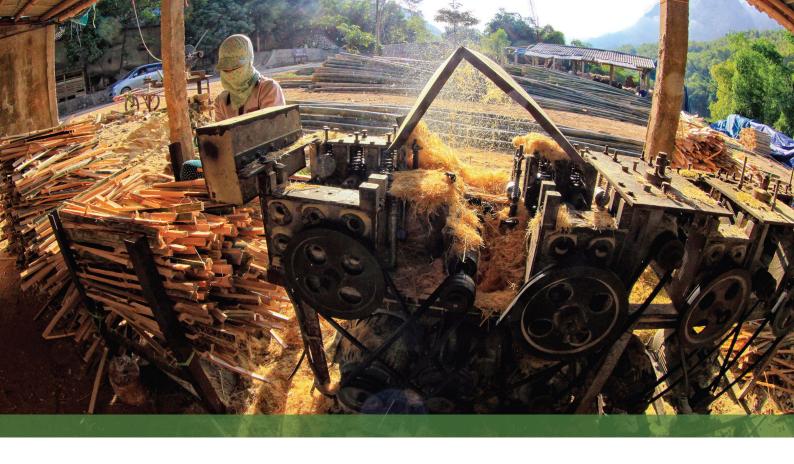
- Scale up growth in the bamboo industry and make Thanh Hoa the leading region in Vietnam and Southeast Asia for the sustainable production and processing of luong bamboo
- Contribute to poverty reduction in the upland districts of the province
- Optimize revenues through increased value addition in bamboo production processes.
- Increase the benefits for 11,000 bamboo farmers
- Protect the environment by reducing waste streams, promoting cleaner production and supporting sustainable forest management.











Supporting farmers and businesses

To realize the objectives of the Bamboo Development Action plan, Thanh Hoa is committed to support businesses and farmers in increasing the sustainable production of bamboo and bamboo products. Support measures highlighted in the Action Plan include infrastructure developments, capacity building, the establishment of bamboo processing hubs, stimulating market demand and the formulation of enabling regional policies.

A number of these measures are coordinated and implemented by the USAID Vietnam Forests and Deltas Program. The program organizes capacity building trainings for farmers on sustainable bamboo forest management and provides technical assistance to bamboo companies to encourage the uptake of clean production methods and waste to energy technologies.

A partnership has been formed with the Lam Son Joint Stock Corporation (LASUCO), which received support in developing an inclusive business plan for the sustainable production of strand woven products. The company has earmarked USD 10 million for investing in new processing technology and facilities.

It is expected that investment in the bamboo sector will yield financial rewards for investors, protect and improve the natural environment, enhance rural livelihoods and encourage further investment in the future.

Converting bamboo waste into energy

Thanh Hoa counts 47 small and medium-sized bamboo processing companies, which manufacture products such as toothpicks, chopsticks, handicrafts and furniture. These factories produce around one million tons of bamboo waste per year. Often the waste is used to make pulp paper through a highly polluting process, involving the use of sodium which is discharged into rivers.

The USAID Vietnam Forests and Deltas Program organized workshops for bamboo companies on converting bamboo waste into energy. As a result of the trainings, Xuan Duong Bamboo Cooperative invested in a machine for compressing bamboo residues into briquettes – a sustainable and clean energy source which can be used in boilers. The company sells the briquettes to industrial zones in Thanh Hoa and Ha Nam provinces to secure additional revenue.

Another company, Tre Xu Thanh, focused on the production of charcoal from bamboo waste. The program supported the company in harnessing finance and accessing profitable markets in Japan and Korea. The two waste-to-energy models provide useful examples for other companies in the sector.

