

CASE STUDY 8

TAPPING THE POTENTIAL OF CARDAMOM FOR POVERTY REDUCTION AND SUSTAINABLE FOREST PROTECTION

CHALLENGE

Author: Le Anh Tuan

Country: Vietnam

Sector: Smallholder Cash Crop

The Northwest is the poorest region of Vietnam, where some six million inhabitants live over an area of 58,000 square kilometres across eight provinces. Forested land accounts for up to two-thirds of the total landmass of this region, and play a crucial role in local livelihoods, environmental protection and poverty reduction efforts. The Northwest's poverty rate ranks highest among the country's eight economic regions. To date, about 29 percent of the total population still has an annual income under poverty line. The region is home to 43 of the country's 61 poorest districts, of which 12 districts are cultivating an estimated 15,000 hectares of cardamom within 50,000 hectares of natural forest, providing a living for 20,000 households.

Cardamom is the most valuable non-timber forest products sourced in Northwest Vietnam. It is known as the "gold of the forest" by upland farmers and helps secure the income of the majority of vulnerable H'mong and Dao ethnic minority communities, whose livelihood used to rely strongly on the exploitation of forest timber and cultivation of crops like maize and rice.

In Lai Chau and Lao Cai provinces, where SNV is providing advisory support for the development of a cardamom value chain, this sector has been playing a vital role in poverty reduction for about 12,000 households among 70 upland communes in 5 districts since the year 2000, when cardamom trade activities between Vietnam and China were expanded.

Up to 2008, the total volume of cardamom trading between Lao Cai/Lao Chau and China amounted to about 3,000 tonnes of dried cardamom. At an average price of US\$4 per kilo in 2008, the product generated an income of US\$12 million annually for the two provinces combined. This portion of income has contributed in an essential way to the development of the agricultural sector of the provinces in the last decade, as well as raising thousands of poor households above the poverty line. Nevertheless, this contribution has yet to match its potential.

Since 2007, SNV has been supporting Lai Chau and Lao Cai provinces in the improvement of its cardamom value chain, focusing on four key intervention areas: (i) Market development; (ii) Productivity improvement; (iii) Quality improvement and an (iv) Enabling business environment. SNV clients in both provinces are the Agriculture Extension Centres (AEC).

The project started by thoroughly examining opportunities both in poverty reduction through the development of cardamom and sustainable protection of headstream forest lands. At the time, both local authorities and farmers were practically unable to find common ground to tap into this sector for poverty reduction while maintaining the vital protective function of the forest. Local authorities were worried about unsustainable cultivation and drying technologies that could weaken the conservational role of 50,000 ha of forest, including farmers clearing young trees to prepare the soil for cultivation and over-cutting mature trees for the drying of the cardamom. At the same time, local farmers were anxious about potential decreases in yield, an unstable consumer market and being prohibited by local authorities from a level of production that would take 10,000 households out of poverty. Furthermore, the fragile links among relevant actors and stakeholders had blocked the competitiveness of the sector against their Chinese rivals.

Specific technical bottlenecks that constrain the development of the sector are as follows:

Low productivity and yield of cardamom: The survey conducted by AEC Lao Cai in collaboration with SNV in early 2008 has shown that the yield of cardamom in almost all communes of Lao Cai remained very low (150 dried kg/ha/year, or even as low as 50 dried kg/ha/year, in Bat Xat District's Den Sang Commune) In countries with developed cardamom production, like India, the application of good production techniques/technology has resulted in increases in productivity of

more than 30 percent. The primary reason for this issue is that most farmers have not learned to apply good cultivation techniques. Furthermore, cardamom seedlings and planting materials in Lao Cai and Lai Chau currently come from natural production, while seedlings are not produced following appropriate technical guidelines.

Poor quality of dried cardamom: Although the quality of Lao Cai cardamom is acceptable to many traders, its potential is currently constrained by two factors: (i) Immature harvesting that result in lower yields and quality of final products. Immature harvesting can reduce yields by 20% and this leads to the low processed quality (meagre pods, dark colour, and pods that cannot be preserved for a long time). Immature harvesting also reduces farmer incomes by 10%. According to estimates by local cardamom traders, each year about 30% of cardamom in Lao Cai is prematurely harvested. The main reason for premature harvests is the fear of theft; however, if the crop is picked correctly when it is mature, the higher yields and higher value of the final product may in all likelihood offset any losses due to theft. (ii) Inefficient and unsustainable drying technology. Until the project's initiation, farmers have used large quantities of firewood from the forest for drying cardamom, and the process took them longer than required. To dry 1,000 kg of fresh cardamom currently requires 96 hours and consumes 3 cubic metres of firewood. In fact, this period of time can be reduced by 30% and the amount of wood can be cut to 1.5 cubic metres or substituted with coal, using improved drying technologies already adopted by more skilful processors and post-harvest consultants.

Lack of quality standards for the product and market approach: Currently, over 90% of Lao Cai cardamom is sold to on the Chinese market. However, stakeholders in the cardamom value chain and responsible departments still lack knowledge and information about processed cardamom in high-end markets (types of product, prices, usage, quality standards for processed products, information on regular export-import companies, market flow, etc.). This leads to limited access to these high-end markets. Moreover, the limited understanding of the cardamom producers, processors and traders on product quality standards has blocked them from accessing high-end markets and have lessened their competitiveness in that market.

Lack of incentive policies for cardamom development: Despite many policies and projects to develop agriculture and forestry in general, the provinces have not launched any on the development of the cardamom sector itself. There are two major obstacles to cardamom development: (i) Theft in the fields, especially during the period close to the harvesting. (ii) Lack of a good mechanism and policy to support research on processing, market access and development of more market channels (in order to avoid sole dependence on the Chinese market) for cardamom export.

Government:

The Departments of Agriculture and Rural Development (DARD) of Lai Chau and Lao Cai provinces are key actors in co-ordination among government stakeholders and service providers during the development of the chain. They have also been assigned by the provinces to monitor the development of related policies to ensure sustainable development of the sector.

The Agricultural Extension Centre (AEC) in Lai Chau and Lao Cai provinces provides technical support to cardamom producers in sustainable cardamom production, improvements in drying technology and access to essential information.

The Departments of Trade and Industry (DTI) in Lai Chau and Lao Cai provinces is the agency responsible for providing cardamom market information to producers and traders, thereby empowering trader associations and facilitating market links. Constraints that need SNV support from client:

The DARD, AEC and DTI of Lai Chau have a common understanding of poverty; all of them believe that the lack of capacity in the provision of necessary production and marketing services for the development of the cardamom value chain is one of the key factors keeping local people in poverty. In addition, the organisations share the concern that poor ethnic minority people are trapped in a vicious cycle; without access to good services and markets, they cannot escape poverty, yet due to their very low levels of capacity in marketing and quality production, they cannot afford the minimum investment required.

Key private actors: (planned 2008-2011)

- Spice export firms in Hanoi are the potential leaders of the chain and key actors in developing a cardamom export market
- Traders dealing with Chinese traders in Lai Chau, Lao Cai and Sapa

Experienced producers

Constraints that need SNV support from client:

The limited capacities of product development and access to good markets, together with weak links between private actors have contributed to significant challenges in motivating the active cardamom value chain in the Northwest to compete with Chinese traders.

Service providers (planned for 2008-2011):

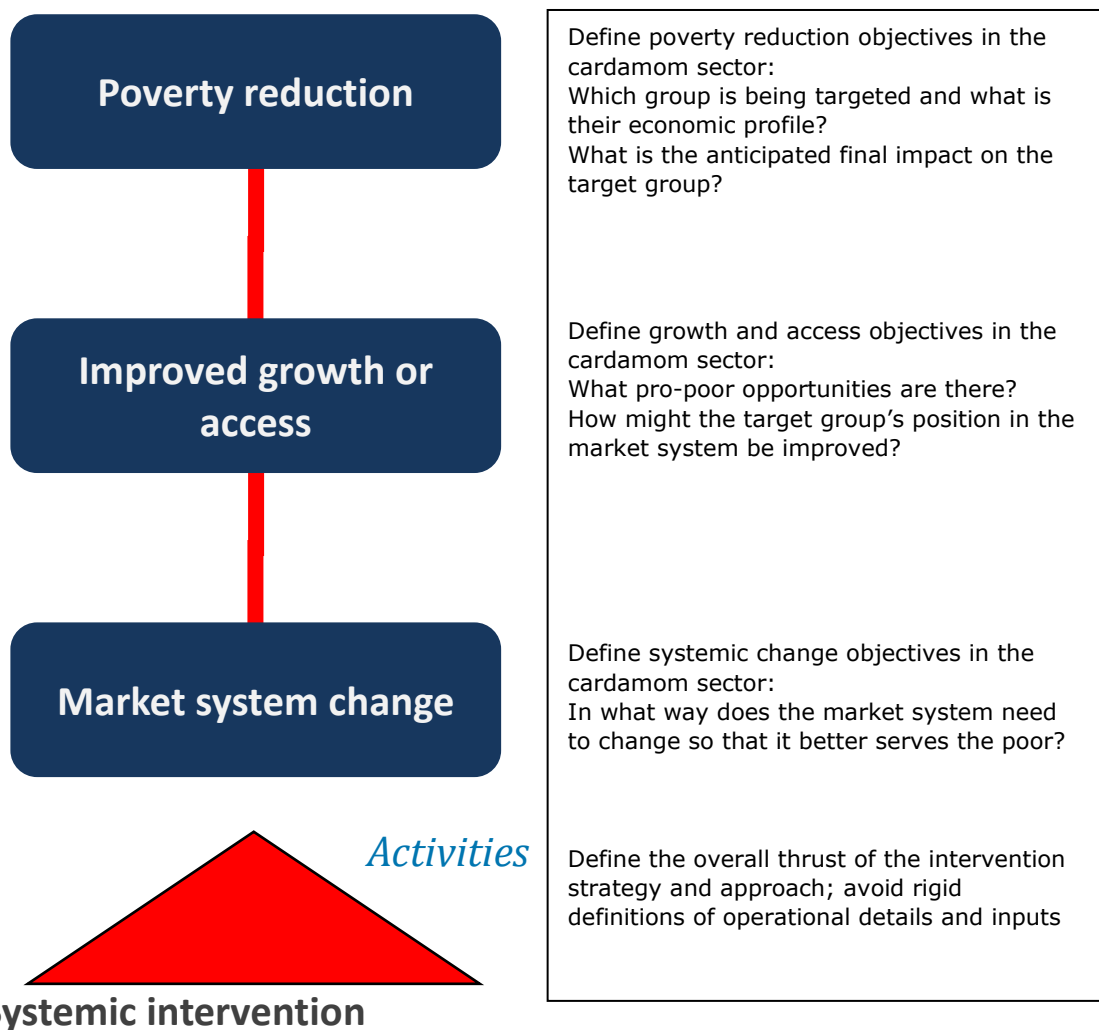
- Organisations involved in developing information services
- Organisations with expertise on Chinese trade and doing business in China

Constraints that require support from the client:

The low quality of service providers has lessened the ability of local producers/processors to utilise human and natural resources to develop cardamom production over time.

The key approach identified by SNV’s advisors to ensure the successful implementation of the project is the “markets for the poor” approach.

Step 1 - Setting the strategic framework



Step 2 – Understanding the market system

M4P is concerned with changing the way market systems work so that they can offer more opportunities and benefits to poor people. Programmes therefore have to make sense of market systems so that they can shape development in the best interests of the poor. In order to do this, as outlined in more detail in the Synthesis, M4P uses a simple model of market systems that represents their multi-function and multi-player nature. Implementing M4P effectively means

applying this lens to generate a continual reference point for all components of the M4P intervention process.

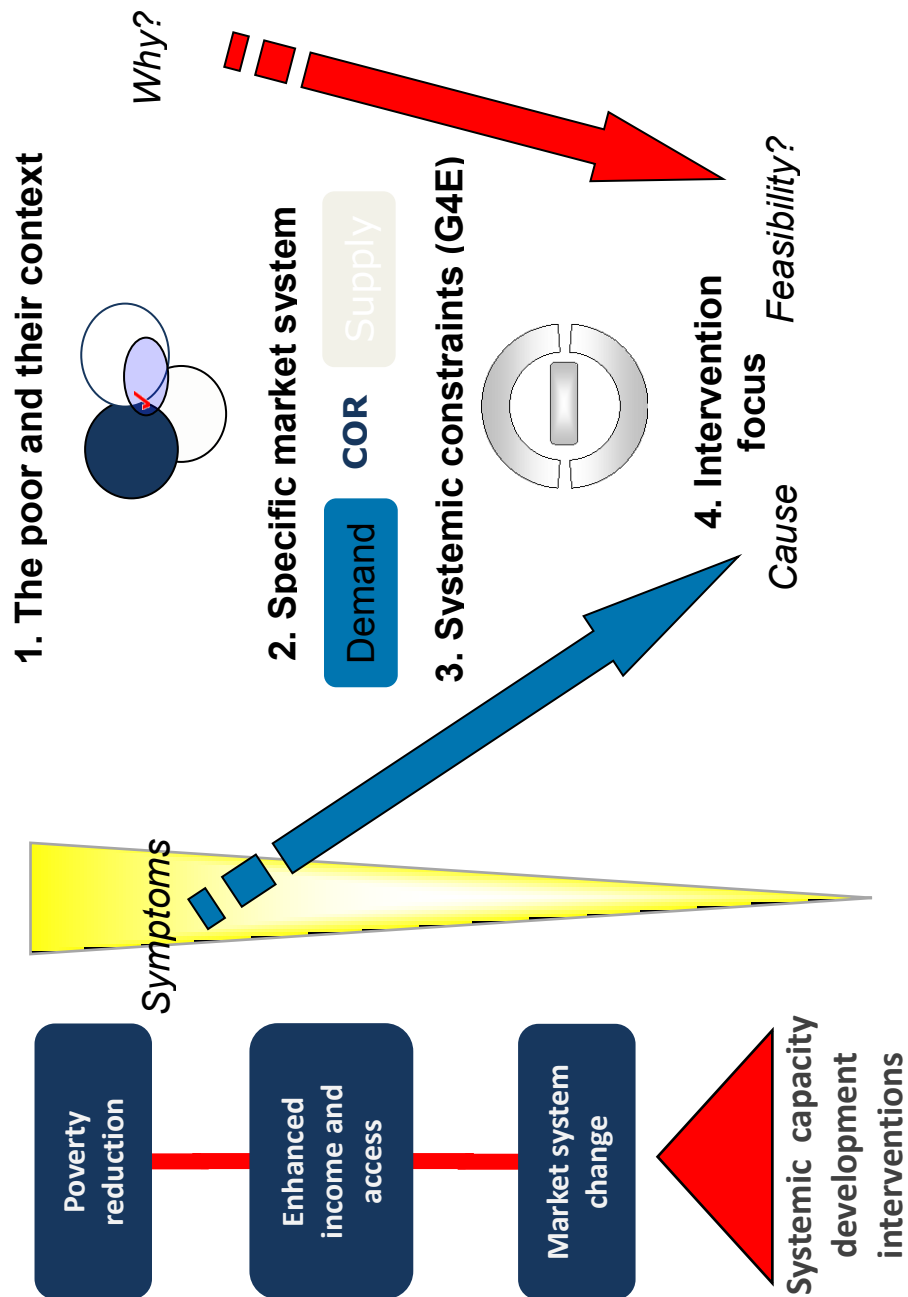
Programme foundation: Reduce poverty

Route through which poverty is reduced: Enhance the poor's access to opportunities and their capacity to respond to opportunities as entrepreneurs, workers or consumers.

Stimulate sustainable change in market systems that are important for the poor
Change market systems through interventions that are facilitative or catalytic in nature.

Step 3 – Undertaking market assessment

Market assessment is a process which starts by understanding the wider socio-economic context of the poor and then narrows the focus to identify specific constraints affecting a market, which are important to the target group and could be addressed by intervention: moving from identifying symptoms to understanding root causes



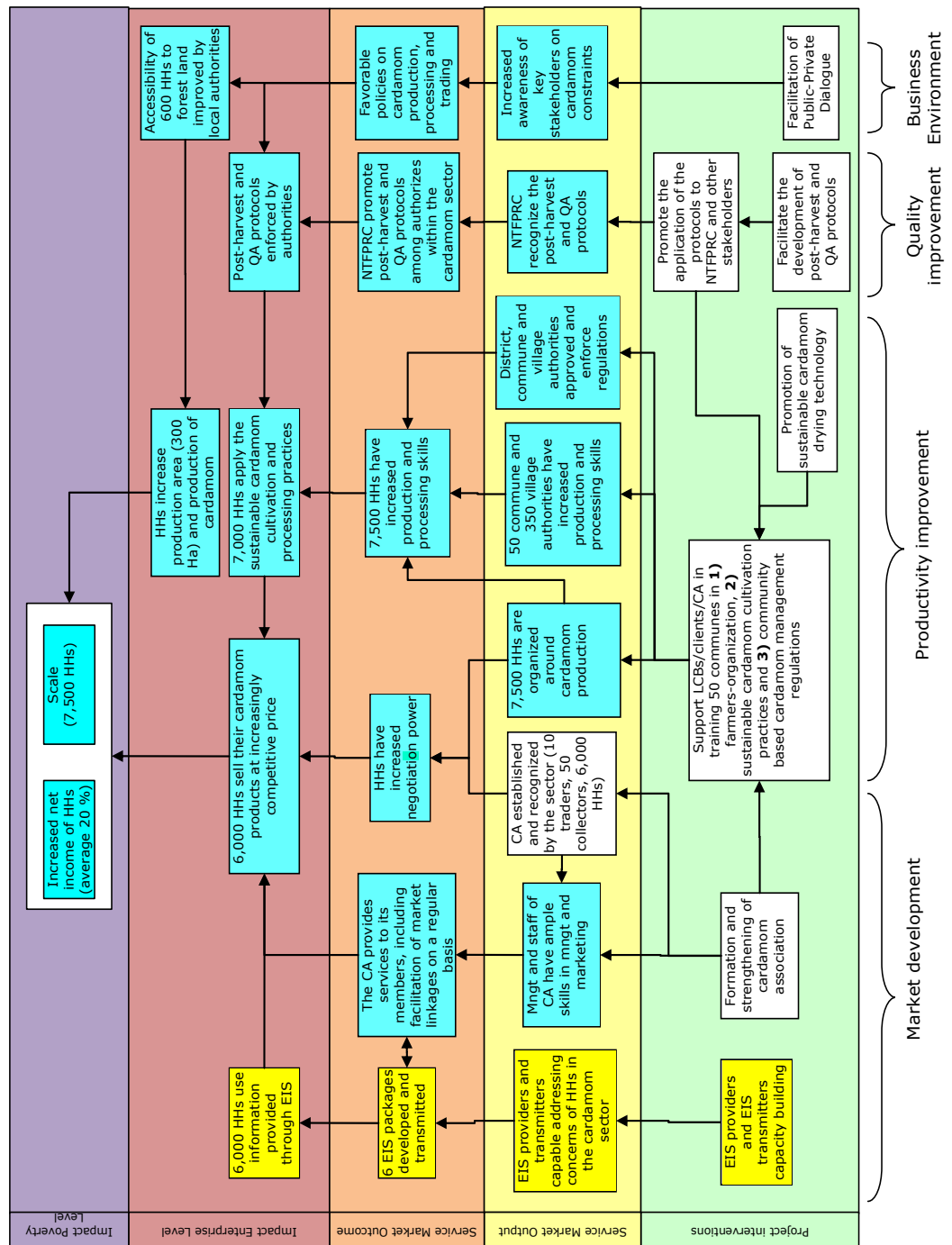
The diagnostic process involves developing a good understanding across three levels:

Level 1: Understand the profile of the poor and their wider context, including overall economic opportunities and key drivers of change

Level 2: Map out the specific market system, its dynamics and the relative position of the poor, specifically how the current market is failing to serve the poor

Level 3: Identify specific systemic constraints in the cardamom sector – the underlying causes of underperformance, obstacles, and opportunities to effect change

Step 4 – Developing a results chain in the cardamom sector of Vietnam 2009-2012: Revision July 2010 → interventions for the period July 2010-Dec 2012



Project interventions	Main activities
TA and capacity building to EIS providers (AEC, CA)	<ul style="list-style-type: none"> • Capacitate staff to develop EIS packages (i.e. information collection, processing and management) • Deliver further coaching and technical assistance (by SNV advisory staff) in development of EIS system and EIS packages and their designs • Link and facilitate the co-operation between EIS providers and EIS transmitters (i.e. Viettel Telecom, radio/TV, etc.) • Capacitate staff of the AEC of the Lao Cai and Lai Chau and CA to conduct assessments of informational needs and supplies (by LCBs/consultants) • Deliver coaching and technical assistance to the EIS providers and transmitters to organise a Cardamom Clinic • Deliver further coaching and training (by LCBs/consultants) to improve the capability of staff of the Lao Cai and Lai Chau AECs and CA in development of EIS packages • Capacitate staff of the Lao Cai and Lai Chau AECs and CA to maintain and manage EIS systems (by LCBs/consultants) • Facilitate profit-based co-operation between EIS providers and transmitters to determine which transmitter (i.e. Viettel Telecom) will pay EIS providers for receiving information • Capacitate EIS providers to promote EIS (by SNV advisory staff, LCBs/consultants)
TA and capacity building to EIS transmitters (incl. farmers' unions, Viettel, radio/TV, etc.)	<ul style="list-style-type: none"> • Introduce the EIS concept to transmitters • Provide training and coaching (by LCBs/consultants) of staff of EIS transmitters to promote EIS packages • Capacitate Viettel Telecom to be an EIS transmitter through a phone system, including calling and SMS switchboards • Support identification and diversification of means of transmitting EIS packages
Formation and strengthening of a cardamom association	<ul style="list-style-type: none"> • Facilitate the formation process of a cardamom association • Provide institutional support for strengthening/organisational development of the CA • Support the CA during its first stage of operation
Training support for LCBs/clients/CA	<ul style="list-style-type: none"> • Identify 50 communes and organise a group of a minimum of 12 village and three commune representatives (in cooperation with LCBs/clients/CA). • Support LCBs/clients/CA in training and coaching of the 50 communes in 1) farmer organisation, 2) sustainable cardamom cultivation practices and 3) community based cardamom management regulations
Promotion of sustainable cardamom drying technology	<ul style="list-style-type: none"> • Develop information packages on sustainable cardamom drying technology • Set up a pilot for improved drying models in each commune
Facilitate the development of post-harvest and QA protocols	<ul style="list-style-type: none"> • Review and/or revise existing national post-harvest and quality assurance protocols relevant to the cardamom sector • Co-operate with leading stakeholders in the formulation of appropriate new protocols

OUTCOME

Promote the application of protocols to NTFPRC and other stakeholders	<ul style="list-style-type: none"> • Lead workshops and training for representatives of the NTFPRC and other relevant organisations in the cardamom sector on national post-harvest and quality assurance protocols • Coach the NTFPRC and other relevant organisations in the cardamom sector in promoting the national post-harvest and quality assurance protocols across the entire cardamom sector
Facilitation of public-to-private Dialogue	<ul style="list-style-type: none"> • Assist in the establishment of work groups and coach the functioning of these groups • Facilitate regular round-table conferences in which both private and public key stakeholders of the cardamom sector in Lao Cai and Lai Chau participate

Service market outcome level by October 2010
EIS packages transferred to HHs with assistance of EIS transmitters
<ul style="list-style-type: none"> • 5,000 different HHs/SMEs received or were exposed to one or more EIS packages since the launch of EIS in 2010.
Clients facilitate market links on a regular basis
<ul style="list-style-type: none"> • A market study for potential export market of Vietnamese cardamom has been carried out, and the final report provides detailed information on the cardamom market, opportunities for cardamom as well as useful recommendations for the improvement of cardamom trading in Vietnam.
Farmers have adequate skills for cardamom production
<ul style="list-style-type: none"> • Capacities of 5,000 households of 34 cardamom communes have been strengthened on productivity improvement and sustainable production. • The Farmer Interest Group (FIG) management methodology was introduced by the project to the AEC in both Lai Chau and Lao Cai in 2009, which in turn formed 12 cardamom groups in the five pilot communes, involving a total of 360 households. • Two Training-of-Trainers (ToT) training courses on sustainable cardamom production and seeding production and nursery development were provided to 50 participants determined to be excellent cardamom processors, commune leaders or local cardamom traders and extension workers. After this training, participants lent their support to more than 5,000 cardamom households in 34 communes for the improvement of their existing, unsustainable cardamom seedling production activities. • Two training manual packages on (i) sustainable cardamom cultivation and (ii) seedling production and nursery development have been developed and distributed to 5,000 cardamom producers, 200 extension workers and 40 commune leaders/staff members for application. • Knowledge and skills on business and marketing development for the small agricultural business model have been transferred to 5,000 cardamom producing households, 200 extension workers and local traders. Two provinces were selected for intervention under the programme. Consequently, ten market links have been established in 2010 between 34 cardamom production communes and three major local traders.
NTFPRC and others promote post-harvest and QA protocols within the cardamom sector
<ul style="list-style-type: none"> • A ToT training on sustainable drying technology development was provided to 50 participants, including cardamom producer-dryers, commune leaders, and local cardamom traders and extension workers. After this training, those people have in turn given their support to more than 5,000 cardamom producers in 34 communes for the improvement of their existing, unsustainable seedling production. • A training manual package on sustainable cardamom drying technology development has been developed and distributed to 3,000 cardamom producers, 200 extension workers and 40 commune leaders/staff members for application • A comprehensive research and development programme for cardamom quality assurance protocol have been undertaken and protocol will be finalised and issued by local authorities for promotion by November 2010 to at least 5,000 households
Favourable policies on cardamom production & development of enabling environment

- A comprehensive programme for support to the development of the cardamom sector in Northwest Vietnam has been formulated for the period 2008–2011. Clients in Lai Chau and Lao Cai provinces understand the approach introduced by SNV and are committed to providing resources for the implementation of the programme. Consensus understandings on constraints, potential opportunities and potential interventions for sector development have been determined by various stakeholders in the chains.
- A mechanism for sustainable cardamom forest management has been developed in Lai Chau and Lao Cai provinces. This was obtained with the support of various related stakeholders in the related sector through comprehensive research on “The current status of cardamom production in Lai Chau and Lao Cai provinces and proposed solutions for sustainable cardamom production in the future”.
- A delegation of 12 key stakeholders participated in an exposure visit to India from May 23 to June 1, 2009, with a concentration on Kerala State in the southern part of India. After the visit, the SNV consulting team and the delegates of the two provinces discussed and jointly proposed a post-visit action plan to support the development of the cardamom industry in the province. A seminar was also held in the province with the participation of members of the study delegation and some related units in the cardamom value chain to disseminate information from the visit as well as to take the action plan to each province for local cardamom industry development.
- The project supported the PPC Lai Chau and Lao Cai in drafting the guidelines on the development of village regulations on sustainable cardamom forest management. The guidelines provide the foundation at district and commune levels to institutionalise the regulation of sustainable cardamom forest management in Lai Chau Province. The project, in co-operation with the AEC Lai Chau and Lao Cai, and local consultancy groups, provided further support to 240 villages in 34 communes of the six districts developing and enforcing village’s regulation for sustainable cardamom forest management.
- A regular dialogue mechanism is being developed by key cardamom stakeholders in both Lai Chau and Lao Cai provinces, SNV facilitated different key stakeholder in two provinces in identifications of inputs for dialogue as well as introduction of PPDs methodology for this sector.
- A formal cardamom association has been formulated and recognised by the Lao Cai Provincial People’s Committee in September 2010, 130 members were registered for the first stage of the association’s establishment

IMPACT

Impact enterprise level

- The enforcement of village regulations was to bring about a more than 20 percent increase in productivity and income from cardamom by the harvest of mature cardamom for about 5,000 households within pilot project areas (at least US\$300 per household). The result of implementation of village regulations this year will be documented for up-scaling to various cardamom production communes in the year 2010. This is projected to increase income at least 20 percent of 7,500 upland households for the 2012 season
- So far, positive effects have been noted from 1,000 local cardamom producer-dryers; with the improved cardamom drying system, they have saved 48 drying hours and about 1 cubic metre of firewood. One trader in Ho Thau Commune has piloted the new drying system, which helped his family save 24 hours of drying and about 30 percent of the cost for input materials (by using rice straw and coal for drying instead of firewood). The dried product also exhibited better colour and aroma, as farmers harvested at the right time and dried it according to the correct steps. These results are expected to be applied on wider scale to at least 3,000 households in 2012.

LESSONS LEARNED

The key leaders of the chain – the cardamom business associations – can assure success for the intervention by facilitating the generation of a sustainable business environment with commercial service providers through market-based solutions.

The selection of a key client in the assignment is important in order to sway other stakeholders, particularly responsible policy-making parties. Having been assigned the development of sustainable cardamom production strategies, the DARD and AEC are in a very good position to incorporate the outcomes of the assignment regarding the proposed policy.

The involvement of Local Capacity Builders (LCBs) has supported SNV and its clients in delivering advisory services to direct and indirect beneficiaries. Strong commitment, devoted clients and LCB/consultants, as well as timely and effective coaching of advisors, are the core catalysts of the capacity building environment and dissemination of empowering knowledge. SNV's approach has been adopted and has enabled other actors to substitute for SNV at certain levels in the process. Participatory and gender issues must always be considered from beginning to the end of every activity; in this project, the strong participation of each actor and stakeholder is a key element for successful implementation of the programme. Gender equality and balance should be a high priority for the selection of participants in all capacity building events (training, workshops, etc.). Cardamom production has close links to the protection and development of forest resources. Hence, the identification of interventions for development of this value chain is more complex than for other cash crop value chains. In order to prove successful, strong support from many different stakeholders is needed.