

Chapter 11

Action Plan

11.1 Structure of Action Plan

The Action Plans were prepared for achievement of the initial targets of the ultimate development goals toward 2020 set up under the Master Plan consisting of 19 programs of eight sectors.

As mentioned in Chapter 11, the proposed 19 programs are categorized into programs for Provincial Master Plan and programs Regional Master Plan. The structure of Action Plans is stipulated in Table 11.1.1.

Table 11.1.1 Structure of Action Plan

	Lai Chau	Dien Bien	Son La	Hoa Binh	Total
Provincial Master Plan	11	11	9	9	40
Regional Master Plan	10				10
Total	21	21	19	19	50

The list of Action Plans is presented in Table 11.1.2.

11.2 Conditions of Action Plan

Each of Action Plans is described in terms of the following aspects.

- 1) Implementation Period
- 2) Target Area and Beneficiaries (Location Map)
- 3) Implementation Agency • Agencies for cooperation (Organization Chart)
- 4) Background and Aim
- 5) Project Summary (Overall Goal, Project Purposes, Expected Results)
- 6) Activities and Outputs
- 7) Inputs
- 8) Recommendations

It is expected to start Action Plans in 2010 and implemented in the 5-year period from 2011 to 2015 of the next SEDP period, which will be divided into two (2) phases. Most of Action Plans are proposed to be commenced with the pilot projects in which technical justification and organizational set-up will be prioritized. Capacity building of the project staff is also emphasized.

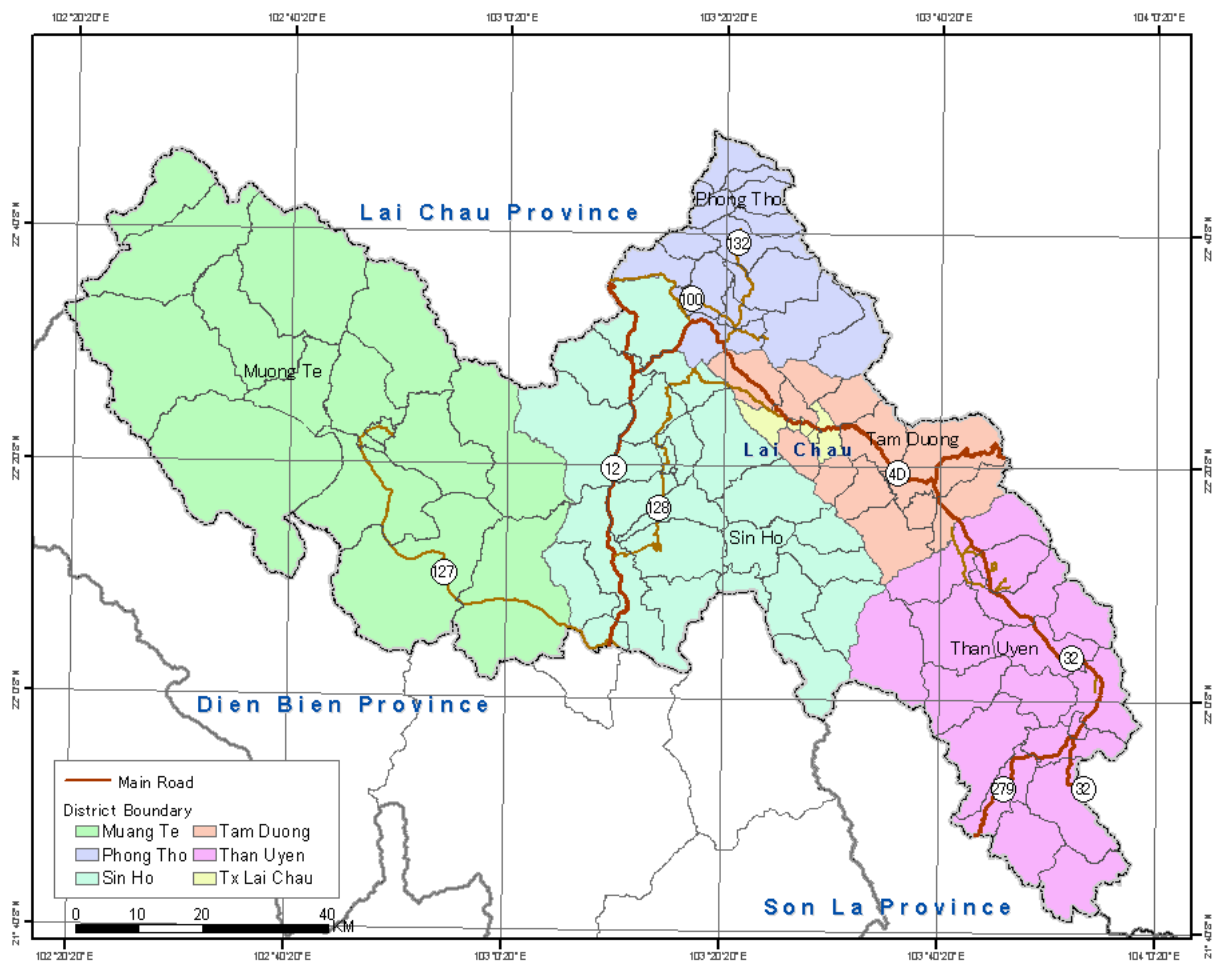
Table 11.1.2 List of Action Plan

Sector	Master Plan Programs	Action Plan			
		Lai Chau	Dien Bien	Son La	Hoa Binh
1. Market-Oriented Agricultural Promotion	1.1 Industrial Crop Production Improvement Program	Quality and Yield Improvement of Tea	Quality and Yield Improvement of Tea	Quality and Yield Improvement of Tea	Quality and Yield Improvement of Tea
			Quality Improvement of Coffee	Quality Improvement of Coffee	
	1.2 Agribusiness Promotion Program	Production and marketing of natural rubber Production and marketing of mushroom	Production and marketing of high quality Dien Bien Rice	Production and distribution of high quality dairy products	Development of farm implements
	1.3 Safe Crop Production Program	Production of Clean Fruits	Establishment of Clean Vegetable Center (CVC)	Establishment of Clean Vegetable Center (CVC)	Establishment of Clean Vegetable Center (CVC)
	1.4 Border Trade Promotion Program	Infrastructure Development in Border Area	Infrastructure Development in Border Area	Infrastructure Development in Border Area	
2. Food Security Improvement	2.1 Remote Area Food Crop Production Program	Rice Production Improvement in Remote Areas	Rice Production Improvement in Remote Areas	Maize Production Improvement in Remote Areas	Rice Production Improvement in Remote Areas
	2.2 Animal Health and Production Improvement Program	Animal Health Control			
		Community Dairy Farm Development	Community Dairy Farm Development		Introduction of Improved Water Buffalo Breed
	2.3 Inland Fishery Supporting Program	Rice Field Aquaculture Pilot Project	Pond Aquaculture Pilot Project		Fishery Resource Management in the Hoa Binh Dam Reservoir
3. Revitalization and Diversification of Income Sources	3.1 NTFP Promotion Program	Integrated NTFP Management	Introduction of Medicinal Plants	Integrated NTFP Management	Promotion of Multi-Purpose Trees and Medicinal Plants
	3.2 Handicraft and Cottage Industry Promotion Program	Promotion of Handicraft and Food Processing at CLC	Community-based Handicrafts and Food Industry	Promotion of Specialty Products	Roadside Stations Sales Promotion Campaign
	3.3 Rural Tourism Program	Green Tourism Promotion	Tourism Village Promotion	Tourism Village Promotion	Tourism Village Promotion
4. Environmental Conservation and Biomass Energy Development	4.1 Da River Watershed Management Program	Afforestation with Rubber and Other Tree Species and Agroforestry Promotion			
	4.2 Natural Forest Conservation Program	Management of Special-Use Forests and Establishment of New Nature Reserves			
	4.3 Biomass Energy Promotion Program	Introduction of Biomass Energy Production			
5. Irrigation and Water Supply Development	5.1 Water User Organization Strengthening Program	Water User's Organization (WUO) Strengthening Pilot Project			
	5.2 Mountain Stream Water Use Program	Mountain Stream Multipurpose Use Pilot Project			
6. Rural Road Development	6.1 Rural Road Maintenance Program	Rural Road Operation and Maintenance Pilot Project			
7. Rural Electrification	7.1 Reusable Energy Rural Electrification Program	Renewable Energy Development Pilot Project			
8. Capacity Building	8.1 Provincial Staff Training for 5 Year Plan Preparation	Formulation of 5-Year Agriculture and Rural Development Plan			
	8.2 Rural Information Database Establishment Program	Northwestern Region GIS Establishment Project			

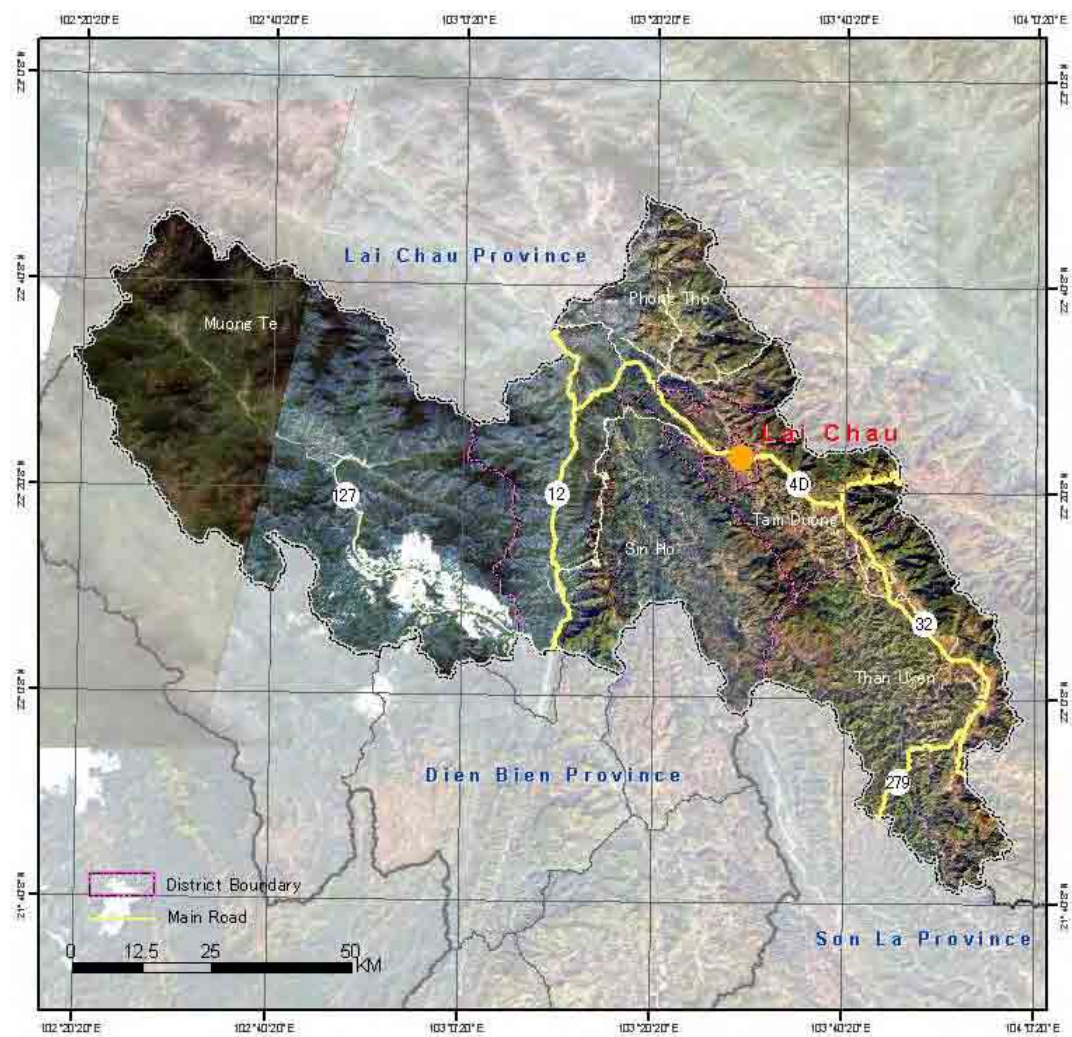
11.3 Action Plan for Lai Chau Province

Lai Chau Province

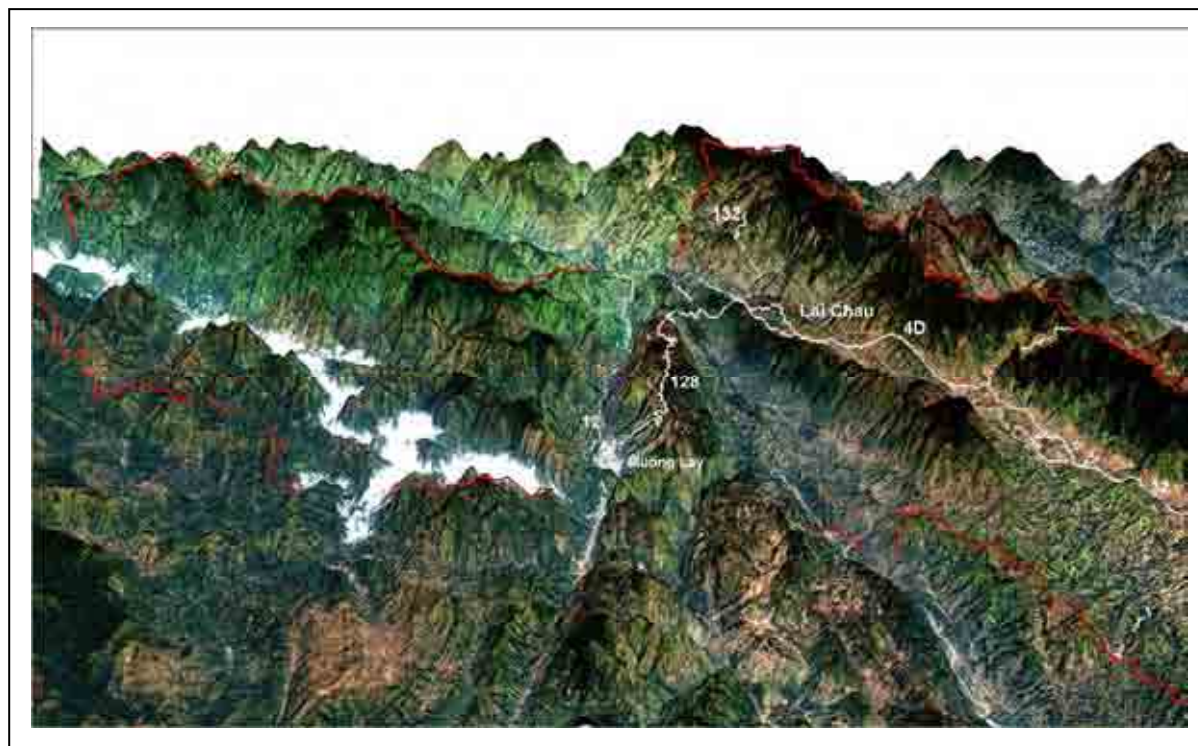
Provincial Master Plan Programs
Action Plans(2010-2015)



Administration Boundaries and Major Road Networks



Satellite Image of Lai Chau Province



3D Landscape of Lai Chau Province

Action Plans for Lai Chau Province

1. Current Conditions of Lai Chau Province

Lai Chau Province is located at the northernmost edge of the Northwestern Region, covering the area of 9,112 km². Its population is 331,000 and its population density (36 persons / km²) is the lowest among the provinces in the Region. (Population density of the Region is 71 persons/ km²) Ethnic groups found in the province include Thai (35% of the provincial population), Hmong (21%), Kinh (13%) , Dao (12%) and Hanhi (5%). Eighty-six percent (86%) of the workforce is engaged in agriculture. GDP per capita in 2005 was US\$212.

The road from Hanoi to Lai Chau, which goes through Hoa Binh and Son La, is 550 km long (National Roads No. 6, 279 and 32). Another way to get to Lai Chau is to fly from Hanoi to Dien Bien Phu, and then take the National Road No. 12 to Lai Chau. In either way, roads in mountain areas are interrupt smooth transport of goods, which is a large constraint to the area development.

Many mountains in Lai Chau Province are over 2,000m high, making the average elevation high. Sixty-nine percent (69%) of the province is located between 500 and 1,500m above sea level. Sixty-seven percent (67%) of the land area is slope land of over 30 degrees. The province has the roughest landscape in the Region. Almost all the areas in the province are in the Da River basin. Watershed conservation is an urgent issue as a) its forest coverage ratio is only 37 %, the lowest among the provinces in the Region and b) 30% of the whole province is covered with sparse vegetations which have high risk of soil erosion.

Provincial GDP in 2005 was 1.058 trillion VND, which is equal to 10% of the total GDP of the Region. Lai Chau Province relies heavily on agriculture as the primary industry accounts for 46% of the provincial GDP. Cultivated area occupies 8% (78,000 ha) of the Regional area. Among the cultivated area are upland field (57,000 ha), paddy field (14,000 ha) and orchard (7,000 ha), accounting for 73%, 18% and 9%, respectively.

Production amount of paddy and upland rice with husks was 93,000 tons in 2005. This is equal to 192 kg of rice without husks per person. Compared to the national average of 168 kg, this is a high figure. Some parts of the province have rice shortage which is supplemented by corn and tubers. The major cash crop is tea whose cultivation area is 4,200 ha; the largest among all the provinces in the Region. Some tea produced in Lai Chau province turned successfully into a brand.

2. Action Plans Proposed

Increased food production and improved diet in remote area

Food security in Lai Chau Province is an important issue as roads within the province and roads to outside are not in good conditions. Action plans are proposed to increase food crop production in the remote areas through a) development of small-scale irrigation in agricultural land in valleys and terrace field by using mountain streams and b) coordination of agricultural extension and provision of rice and maize seeds.

Efforts to enrich the diet of local residents through the assistance on livestock industry and fishery are also needed. Lai Chau Province has a cool climate where water buffaloes are widely used as draft animal. Increased production of water buffalo milk and meat is needed through a) improved species and b) increased number of meat and milk water buffalo. Improved service to maintain animal health and stable supply of feed are also required. Action plans for water buffalo milk and meat production and animal health service are proposed.

Large-scale pond aquaculture is not suitable for Lai Chau Province where water sources and land are very difficult to obtain. Instead, paddy aquaculture for household consumption should be carried out. Action plans are proposed to establish and extend technology/technique for secondary occupations of poor farmers and women's groups are also included.

Adoption and extension of agricultural products for border trade

Lai Chau Province shares a border with Yunnan Province of China. Border trade with China is carried out in Ma Lu Thang, Phong Tho Province. Amount of trade in 2006 was US\$3.7 million. Contribution of the border trade to the provincial economy is not meager as this amount is 9.4% of the provincial GDP. In terms of the trade balance, amount of Vietnam's export to China is much more than that of China's export to Vietnam. The major export items to China include tea, cardamom, bamboo pulp, and iron-ore. Amount of tea export to China is increasing. In 2006, 1,900 tons of tea leaves were exported to China. The province has another border gate in U Ma Tu Khoang, Muong Te District which is currently closed. With these two border gates, border trade is likely to play a major role in agricultural development in the province. Stabilization of people's livelihood in the border area is very important in promoting sound border trade. For this, infrastructure development to improve living environment of local people is needed.

Diversification of specialty products with a view on border trade is required. Clean land and water resources are important resources of the Region. Safe agricultural products from the province have potentially high market competitiveness. In an action plan, high priority is placed on fruit production by way of agroforestry extension. Because fruits are harvested several years after planting of seedlings, an action plan proposes quality improvement of tea which brings immediate effects.

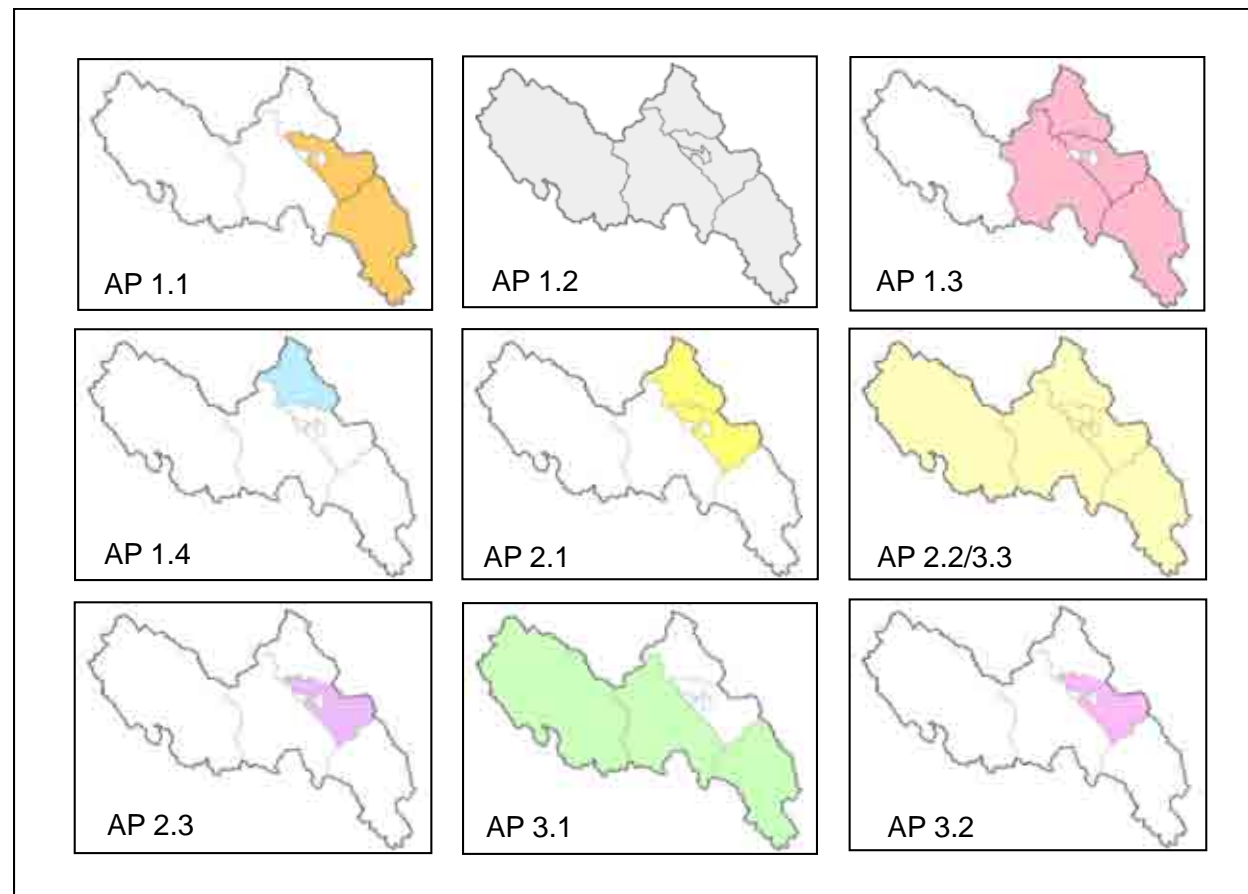
Although Lai Chau Province has disadvantages in having private firms operate in the area, promotion to attract agribusiness beyond 2020 is important. An action plan proposes production and sales of natural rubber and mushrooms as a local industry based on the unique characteristics of the province.

Utilization of forest resources and development of handicraft industry

Promotion of non-timber forestry products (NTFP) is an important development theme of Lai Chau Province. This is because adoption and extension of production activities are sought that do not rely much on land resources. Bamboos, rattan, lac, Trau trees, etc. are widespread in the province, needing an action plan to establish comprehensive management system.

Diversification of income sources through the development of handicraft industry and tourism is needed for women and farming households with not enough land for cultivation. Based on the actual track record of farmers' education carried out in CLCs, an action plan proposes a pilot project for training of cooperatives and micro enterprises on handicraft and food processing. As Lai Chau Province has abundant natural resources, another action plan is proposed for the development of tourism/culture village and green tourism in which tourists can experience cultures and traditions of minority ethnic groups. This action plan is based on experience and lessons learned from tourism development in Sa Pa in Lao Cai.

Sector	Master Plan Programs		Action Plan		Page
Lai Chau Province Master Plan					
1. Market-Oriented Agricultural Promotion	1.1	Industrial Crop Production Improvement Program	AP1.1	Quality and Yield Improvement of Tea	12-8
	1.2	Agribusiness Promotion Program	AP1.2	Production and Marketing of Rubber	11-10
			AP1.2	Production and Marketing of Mushroom	11-12
	1.3	Safe Crop Production Program	AP1.3	Production of Clean Fruits	11-14
	1.4	Border Trade Promotion Program	AP1.4	Infrastructure Development in Border Area	11-16
2. Food Security Improvement	2.1	Remote Area Food Crop Production Program	AP2.1	Rice Production Improvement in Remote Areas	11-18
	2.2	Animal Health and Production Improvement Program	AP2.2	Animal Health Control	11-110
			AP2.2	Community Dairy Farm Development	11-20
	2.3	Inland Fishery Supporting Program	AP2.3	Rice Field Aquaculture Pilot Project	11-22
3.Revitalization and Diversification of Income	3.1	NTFP Promotion Program	AP3.1	Integrated NTFP Management	11-24
	3.2	Handicraft and Cottage Industry Promotion Program	AP3.2	Promotion of Handicraft and Food Processing at CLC	11-26
	3.3	Rural Tourism Program	AP3.3	Green Tourism Promotion	11-28
Regional Master Plan					
4.Environmental Conservation and Biomass Energy Development	4.1	Da River Watershed Management Program	AP4.1	Afforestation with Rubber and Other Useful Trees and Agroforestry Promotion	11-112
	4.2	Natural Forest Conservation Program	AP4.2	Management of Special-Use Forests and Establishment of New Nature Reserves	11-114
	4.3	Biomass Energy Promotion Program	AP4.3	Introduction of Biomass Energy Production	11-116
5.Irrigation and Water Supply Development	5.1	Water User Organization Strengthening Program	AP5.1	Water Use's Organization (WUO) Strengthening Pilot Project	11-118
	5.2	Mountain Stream Water Use Program	AP5.2	Mountain Stream Multipurpose Use Pilot Project	11-120
6. Rural Road Development	6.1	Rural Road Maintenance Program	AP6.1	Rural Road Operation and Maintenance Pilot Project	11-122
7.Rural Electrification	7.1	Renewable Energy Development Program	AP7.1	Renewable Energy Development Pilot Project	11-124
8.Capacity Building	8.1	Provincial Staff Training for 5 Year Plan Preparation	AP8.1	Formulation of 5-Year Agriculture and Rural Development Plan	11-126
	8.2	Rural Information Database Establishment Program	AP8.2	Northwestern Region GIS Establishment Project	11-128



Action Plan Coverage Maps

Sector	Market-Oriented Agricultural Promotion		
Program	Local Industrial Crop Production Improvement Program		
Action Plan	Quality and Yield Improvement of Tea in Lai Chau Province		
Implementation Period	6 years Phase I: Implementation of Pilot Scheme, Phase II: Expansion of development schemes to the whole province)		
Target / Area	The whole area of Lai Chau Province is targeted with Tam Duong District and Than Uyen Districts as priority areas. Tea producing farmers, related technical extension agents, tea processors, etc.		
Implementation Agency	DARD	Agencies Concerned	Agricultural Extension Center, Northern Mountain Area Agro-Forestry Science & Technology Institute (Vietnam Tea Research Center), etc.

Objectives

Lai Chau Province is located at high altitudes and cool-cum-humid climate to which production of tea of the Shan variety is best suited. Tea is a local specialty of Lai Chau Province which is cultivated in 4,000 ha area, accounting for nearly 40% of the tea cultivation area in the Northwest Region. In the past, the state farm did commercial production of tea in which tea was cultivated as a cash crop, its leaves were processed and, then, marketed. Currently, a few tea processing companies exist in the province most of which carries out primary processing of tea leaves, and then sell the processed leaves to larger companies in other areas to finish the tea product. In Vietnam, the "Lai Chau Tea" brand is slowly getting recognition, but further effort is needed to have the brand accepted by wider population as regional specialty.

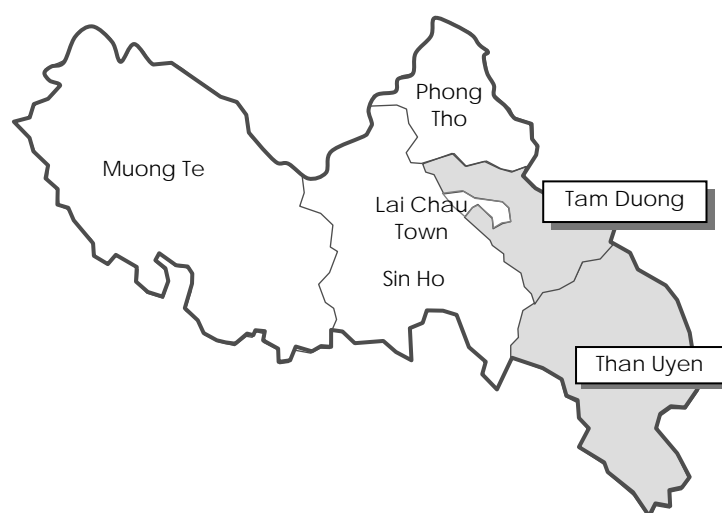
Except for tea field, which is the core of the plantation, and processing facilities, most state-run tea plantations are divided into small blocks and released/transferred to farming households. Tea cultivation and production are, thus, contracted to these households these days. For this reason, production of tea leaves is now done in small-scale tea farms (0.1 to 0.2 ha) by individual farming households. As for tea cultivation technique, conventional cultivation methods are used, and together with low-level maturity of (younger aged) tea plants, the average yield of tea is only about 1.2 ton/ha. Quality improvement has also been stagnant till today.

In order to improve the productivity of tea plantation, and then, stabilize the livelihood of tea farming households in a sustainable manner, improvement of cultivation methods is needed as a measure to increase the unit yield. For this, change of planting method from the on-going single-stem-standing (planting a seedling/hill) to the plural-stem-standing (planting a number of seedlings/hill) is recommended. Also, the current crown-shape of low stem-cum-flat plate type should be changed to that of tall stem-cum-dome type. Tea varieties that are suited to be produced into fermented tea (black tea, oolong tea, etc.) are currently cultivated in the province.

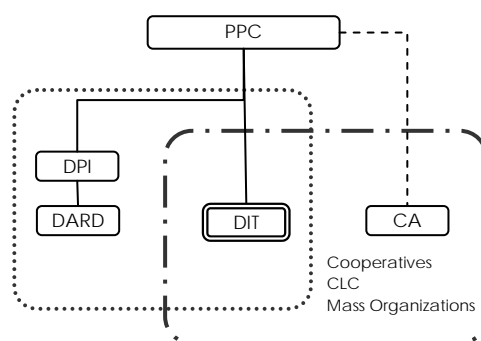
As the demand for tea leaves for drinking and medical use is growing in international market, tea can be considered as a promising commercial crop. In terms of the potential for promotion of tea industry in the Northwest Region, large-scale development can be expected because it is possible to cultivate tea on a mountain slope up to 20 or 22 degrees. Development of tea plantation supplements the vegetation improvement of areas whose soil was weakened due to series of swidden/shifting cultivation over a long period of time. For this reason, development of tea plantation is expected to contribute greatly to watershed conservation

Project Area: Lai Chau Province

Priority districts of this action plan (2 districts)


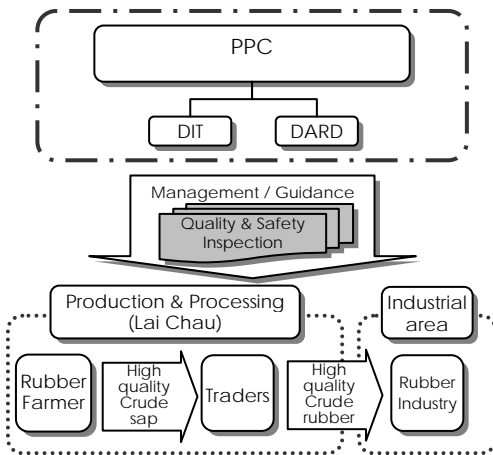


Organizations



PPC: Provincial People's Committee
 DIT: Department of Industry & Trade
 DPI: Department of Planning & Investment
 DARD: Department of Agriculture & Rural Development
 CA: Cooperative Alliance

Project Summary											
Overall Goal				Outputs							
Productivity of tea industry and income of tea farming households are both increased.				1. Establishment and demonstration of appropriate technique for tea cultivation (pilot activities)							
Project Purpose				2. Quality improvement of tea product throughout the province							
Tea produced in Lai Chau Province is established as a brand well known in the domestic market as a local specialty product of the province. Supply system of tea that would meet the demand in the market is established.				3. Increase of tea production throughout the province							
Activities				Reports and Materials		Annual					
						1	2	3	4	5	6
Productivity improvement scheme for coffee plantation											
1. Baseline study and planning of pilot schemes (50 ha x 2 sites)				- Baseline study report							
1-1 Baseline study on agricultural conditions (cultivation technique and household economy) among tea producing households				- Report on tea market study							
1-2 Study on tea purchases and domestic and international trade				- Data on quality and price standards							
1-3 Quality standard of tea products, setting up of quality and price, production technique and issues to overcome				- Pilot activity proposal							
1-4 Selection of pilot scheme areas, designing of scheme and consensus building with beneficiary farmers (participants)											
2. Implementation of tea plantation pilot scheme				- Guidelines for local government							
2-1 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation method/practices, etc.				- Seedlings of appropriate varieties							
2-2 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods/practices, technical training, etc.)				- Extension materials for tea farmers							
2-3 Introduction of appropriate farming tools (pruning shears, sprayer for pest control, etc.)				- Farming tool instruction leaflets							
2-4 Measures to improve and strengthen the institutional supporting services for tea plantation (including farmers' organization, institutional financing, etc.)				- Demonstration farm							
2-5 Improvement of primary processing facilities				- Campaign, posters							
2-6 Establishment of production center (quality improvement, improved efficiency of procurement of raw materials and processing)				- Records of studies on quality and yield							
2-7 Government campaign to establish market channels and popularize the northwest brand tea (Lai Chau Tea)											
2-8 Monitoring and evaluation of the activities											
3. Training and guidance of tea leaf production technique for agricultural extension staff, etc.				- Record of farm activity, data on crop yield							
3-1 Technical transfer and practical training of provincial and district agricultural extension officers/agents				- Training record, Work record of processing factory							
3-2 Practical training and guidance of extension workers and key tea farmers through management of the demonstration farm											
3-3 Technical transfer to tea processing engineers											
4. Technical extension/expansion of tea schemes to other districts				- Annual report							
4-1 Selection of target area and consensus building with beneficiaries on participatory activity for tea scheme implementation											
4-2 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation methods/practices, etc.											
4-3 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods/practices, technical training, etc.)											
4-4 Introduction of appropriate farming tools (pruning shears, sprayer for pest control, etc.)											
4-5 Strengthening of farmers organization and promotion to bring in financial institutes											
4-6 Improvement of primary tea processing facility, and establishment of commercial tea processing facility											
4-7 Establishment of production center and a brand											
Inputs											
1. Experts on				2. Material and equipment for pilot activities							
1-1 Industrial crop (Tea)				2-1 Equipment for technical demonstration farm							
1-2 Tea processing technique				2-2 Processing equipment							
1-3 Processing machines				2-3 Vehicle (loading capacity: 2 tons)							
1-4 Marketing/Distribution system				3. Teaching materials, Guidelines for crop cultivation, etc.							
1-5 Participatory development				4. PC, AV and training equipment							
1-6 Monitoring and evaluation											
Recommendations											
1. Establishment of production center should not be carried out in a top-down manner. Instead, it should be done while the farmers understand the market needs. Expected results will not be attained without organizing farmers or changing their ways of thinking concerning their acceptance of local government services. Adoption of community development approaches is essential.											
2. Although tea leaf production has been going on in Lai Chau, accumulated know-how from the basic studies and experiments hardly exists. For this reason, implementation of the tea pilot scheme shall be carried out first in the priority districts while receiving technical assistance from the Northern Mountain Area Agro-forestry Science and Technology Institute.											
3. Currently, tea seedlings are supplied to farmers by the state tea farm as one of its work functions. However, the amount for supply is not enough due to low working capacity of nurseries. To overcome the situation, farmers are producing their own seedlings with cutting practice. These are not evenly healthy and good seedlings. Preparation of good seedlings using recommended/good varieties and their distribution are urgently needed.											

Sector	Market-Oriented Agricultural Promotion		
Program	Agribusiness Promotion Program		
Action Plan	Production and Marketing of Rubber in Lai Chau Province		
Implementation Period	6 years		
Target / Area	Rubber cultivation farmers and rubber traders who are aiming to produce and distribute natural rubber.		
Implementation Agency	DARD	Agencies Concerned	DIT, DAPSI/MARD
Objectives <p>Development of the agribusiness which is mainly composed of agro-processing is indispensable, for industrialization of Northwestern regions towards 2020. The agribusiness promotion program proposed by a master plan is the program which premised introduction of the private capital, and the private-sector firms which have an investment incentive to Northwestern regions is indispensable. Under the strong initiative of the administration towards Northwestern regions development, and while regularization of the law system and establishment of the enterprises under Government-private sector cooperation, to specify the success example at an early stage is wished.</p> <p>In Lai Chau Province, large scale rubber cultivation has just started. With this action plan, support for cultivation of rubber tree and quality-management of harvested rubber sap, is carried out for both rubber cultivation farmers and rubber traders. Most part of Lai Chau Province is occupied by steep mountainous area and this province is behind in maintenance of social infrastructure. To promote agricultural production by using rich natural environment which does not suppress environment is indispensable to improve local resident's cash inflow and living environment.</p> <p>Recently, cassava cultivation has been pointed out that it is the cause of land slide or erosion by disorderly planting, and expansion of the crop land has been forbidden. Expansion of coffee cultivation area is also forbidden, because increase of the quality should be a problem of the utmost importance than increase of quantity. Under these circumstances, significant of cultivation of rubber plant is large, because it increases an agro-type and distribute the risk of poor harvest of cultivated plants. Rubber plant can be afforested also in the comparatively inclined terra, and its harvest cycle is also comparatively slow. Even though rubber plant is a new agro-type, which seems to be easy to be accepted in the ethnic minority of the area which is traditionally in contact with a forest product in a mountain range.</p> <p>The demand of natural rubbers is growing rapidly in recent years, and is very promising as a cash crop. Extracted crude-material sap can be sold over to trader without special processing as primary product.</p> <p>By this plan, a proper cultivation and harvest method etc. are extended to the local residents. Private trader will be instructed to round in the cultivation area and collect material crude rubber from farmers in a proper counter-value.</p> <p>During actual proof investigation, rubber cultivation farmers will confirm the importance of the quality management of the rubber, and also confirm that high quality crude rubber can be sold in high price. During these activities, staffs of DARD and agricultural extension center will extract the subject of agricultural technique instruction towards improvement of quality of crude rubber. On the other hand, MPI-DPI performs required administrative services to maintain the investment-environment of private sectors.</p>			
Project Area: Lai Chau Province		Organizations	
 <p>The map shows the geographical layout of Lai Chau Province, divided into five districts: Muong Te (western), Phong Tho (northern), Sin Ho (central), Tam Duong (southeastern), and Than Uyen (southern). The province is labeled at the bottom.</p>		 <p>The organizational chart illustrates the flow from production to the industrial area. At the top, the Private Promotional Committee (PPC) oversees the Department of Trade & Industry (DIT) and the Department of Agriculture & Rural Development (DARD). Below them is a Management/Guidance layer with Quality & Safety Inspection. The core process involves Rubber Farmers producing High quality Crude sap, which is then traded by Traders to become High quality Crude rubber, finally reaching the Rubber Industry in the Industrial area.</p> <p>DIT: Department of Trade & Industry DARD: Department of Agriculture & Rural Development</p>	

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Sector	Market-Oriented Agricultural Promotion		
Program	Agribusiness Promotion Program		
Action Plan	Production and Marketing of Mushroom in Lai Chau Province		
Implementation Period	6 years		
Target / Area	Mushroom production farmers and traders who are aiming to produce and distribute mushroom		
Implementation Agency	DARD	Agencies Concerned	DIT, FIRI, GRI

Objectives

Development of the agribusiness which is mainly composed of agro-processing is indispensable, for industrialization of Northwestern regions towards 2020. The agribusiness promotion program proposed by a master plan is the program which premised introduction of the private capital, and the private-sector firms which have an investment incentive to Northwestern regions is indispensable. Under the strong initiative of the administration towards Northwestern regions development, and while regularization of the law system and establishment of the enterprises under Government-private sector cooperation, to specify the success example at an early stage is wished.

With this action plan, support for production and quality-management of mushroom which count upon expansion of consumption near future. Most part of Lai Chau Province is occupied by steep mountainous area and this province is behind in maintenance of social infrastructure. To promote agricultural production by using rich natural environment which does not suppress environment is indispensable to improve local resident's cash inflow and living environment.

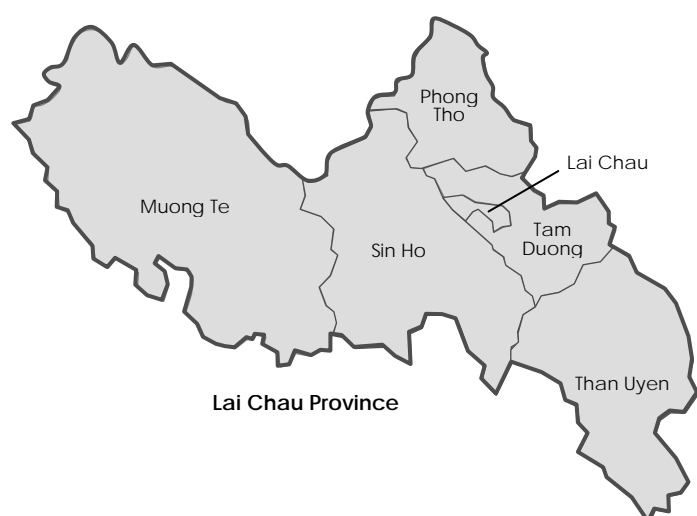
Recently, cassava cultivation has been pointed out that it is the cause of land slide or erosion by disorderly planting, and expansion of the crop land has been forbidden. Expansion of coffee cultivation area is also forbidden, because increase of the quality should be a problem of the utmost importance than increase of the quantity. Under these circumstances, significant of production of mushroom is large, because it increases an agro-type and distribute the risk of poor harvest of cultivated plants caused by unseasonable weather etc.

Recently, demand of mushroom is extended in large consumption cities such as Hanoi, and mushroom can circulate in normal temperature by carrying out dry processing. It is promising as an agro-type for cash income in mountainous regions.

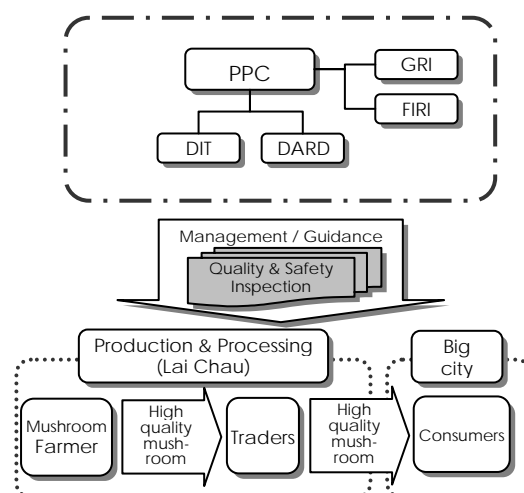
By this plan, a proper production and harvest method etc. are extended to the local residents. Final dry mushroom will be introduced to private trader and sold in a proper counter-value.

During actual proof investigation, mushroom production farmers will confirm the importance of the quality management of the mushroom, and also confirm that high quality products can be sold in high price. During these activities, staffs of DARD and agricultural extension center will extract the subject of agricultural technique instruction towards improvement of quality of mushroom. On the other hand, MPI-DPI performs required administrative services to maintain the investment-environment of private sectors.

Project Area: Lai Chau Province



Organizations



DIT: Department of Trade & Industry
DARD: Department of Agriculture & Rural Development
FIRI: Food Industry Research Institute
GRI: Gene Resources Institute

Project Summary							
Overall Goal 1. The income of mushroom production farmers will be diversified, increased and stable. 2. The differentiated specialty product is produced by utilizing the resources peculiar to Northwestern regions. Project Purpose The cash income of mushroom farmers will be improved.				Outputs 1. Since preferential treatment is planned by the Government authorities to the mushroom production farmers and traders, they can tackle production and collection of mushroom very enthusiastically. 2. Since high quality mushroom will be produced, cash income of both mushroom farmers and traders will increase. 3. Since quality inspection and safe verification will be performed by the specialized agency, consumers can secure safe and high quality mushroom.			
Activities 1. Actual proof investigation for production and sales of mushroom 1-1Market survey of mushroom. 1-2To deepen the awareness for quality improvement of DARD staff and mushroom production farmers. 1-3Production of mushroom 1-4Sales promotion to mushroom in Hanoi 1-5Advertisement of high quality mushroom 2. Acceleration of the investment for private mushroom traders / collectors (Study at MPI level is needed) 2-1Tax break measure 2-2Promotion of practical use of long-term and low-cost loan. 2-3Acquisition support of industrial land 2-4Promotion of maintenance of an infrastructure (electricity, road) 3. Improvement of the production environment to mushroom farmers 3-1Promotion of practical use of low-cost loan of the production fund to mushroom farmers 3-2Stable supply of the mushroom fungi and production equipment at low price to mushroom farmers. 3-3Promotion of maintenance for agricultural infrastructures (mushroom production facilities etc.) 4. Instruction of production management for high quality mushroom 4-1To deepen the awareness for value chain 4-2Unification of the production variety 4-3Rationalization of production work, harvesting, processing and storage 4-4Quality inspection and safe verification of mushroom by specialized agency 4-5Purchase contract of mushroom between farmers and traders 5 Capacity increase of DPI and DARD 5-1Guidance about production technology 5-2Guidance about harvesting and quality control technology 5-3Guidance about formation and expansion of sales network 5-4Monitoring appraisalment of overall project				Reports and Materials - Database of client - Record of workshop - Instruction manual - Brochures - Brochures - Instruction manual - Instruction manual - Instruction manual - Quality standard - Instruction manual - Instruction manual - Instruction manual - Appraisal report			
				Annual 1 2 3 4 5 6			
Inputs 1. Experts on 1-1 Mushroom production & processing 1-2 Agro-products distribution 1-3 Legal system 1-4 Finance & taxation 1-5 Agricultural cooperative 1-6 Monitoring and evaluation 2. Equipment and materials for pilot project 2-1 Mushroom drying and storage facility 3. Expense for workshop and training meeting etc. 4. Teaching materials and training manual etc. 5. Personal computer and accessories 6. Expense for investigation and design							
Recommendations 1. To improve the low system for the investment and taxation, in order both mushroom production farmers and mushroom traders will have volition to take part in the planning of. 2. Cultivation variety should be selected from the traditional species, which local farmers can continue traditional production system without uncomfortable. After some years, new varieties will be introduced. 3. Newly producing varieties should be selected from the species which are conserved at Gene Resources Institute in Hanoi etc., and conventional Vietnamese species should be recommended. 4. In production of the mushroom plant, an organic farming should be taken in as much as possible, and “Safe Agricultural products (Mushroom)” is advertized to the consumers in large cities. 5. Quality inspection and safe verification system of mushroom by specialized agency will be established. A severe quality management is performed and to produce final products which can obtain a consumer confidence. 6. Coordination with FIRI is essential for training of processing techniques to farmers. 7. The Government authority’s side performs fair agency so that the mushroom farmers and a private traders can take part in this plan in comfort.							

Sector	Market-Oriented Agricultural Promotion		
Program	Safe Crops Production Program		
Action Plan	Promotion of Clean Fruits in Lai Chau Province		
Implementation Period	3 years		
Target / Area	Sin Ho District, Tam Duong District, Phong Tho District, and Than Uyen District in Lai Chau Province		
Implementation Agency	DARD	Agencies Concerned	Department of Crop Production (MARD) , Agricultural Extension Center, etc.

Objectives

The Mekong Delta is the major production area of fruits in Vietnam, accounting for 40% of the production area in the nation. Fruit production in the northern mountainous region has been growing rapidly these days, accounting for more than 20% of the production area in the nation. This is taking place against the background of increasing demand for fruits for export to Hanoi and China. Among all the fruits, the rate of increase of those of the lychee family (lychee, longan, rambutan), and the citrus family (mandarin, king orange) is especially high. On the other hand, banana export remains stagnant, and the pineapple production shrank in 1990s.

Lychees are widely produced in Lai Chau Province and lychee export to China is showing a trend of expansion. In terms of activation of local agriculture, increased production and quality improvement of fruits are considered to be essential. Increased amount of shipping to Hanoi and development of market in Sapa, a tourist destination near Lai Chau, or Dien Bien are likely to be necessary, which calls for diversification into plums, apricots, longans, blueberries, persimmons, etc. and quality improvement.

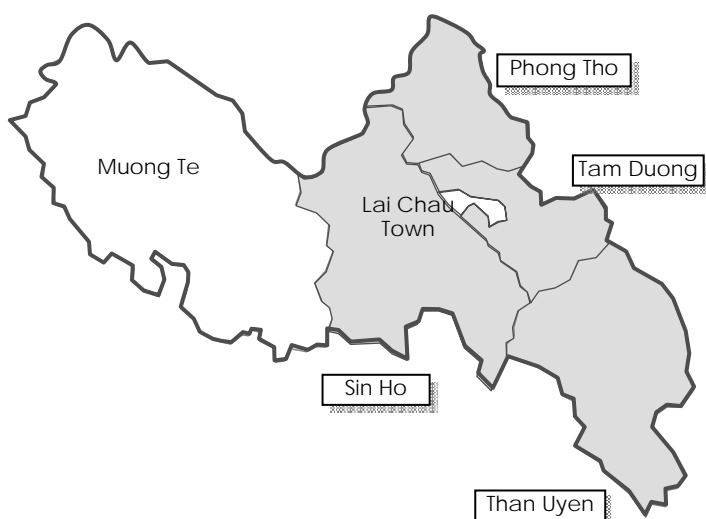
After planting of fruit trees/seedlings, at least 3 years is needed for fruit production to get on the track. For this reason, extension activities should not focus only on planting of fruit trees. Instead, it should be done with production assistance on food crops (or local specialties such as seasonings, herbs, etc.) so that income of farming household increases on a short-term basis. Agroforestry of mixed species consisting of fruit trees and ordinary trees should be carried out to conserve the soil of denuded land which was used for swidden cultivation. Promotion of such fruit tree planting is likely to be an effective measure. Utilization of community owned land for agroforestry or farm forest (composting of fallen leaves) is also effective so that adoption of such activity as a community development measure is worth examining.

This action plan aims for 1) seedling production and distribution for diversification of fruit trees, and 2) introduction of organic farming technique in the period between 2010 and 2012, so that Lai Chau Province will become the major production area of low-agrochemical, organic fruits in 2020. Seedling production should be done not by itself, but in coordination with programs on forestation of rubber trees or watershed conservation. This will improve the cost effectiveness/efficiency. This action plan promotes clean fruit production through adoption and extension of organic cultivation technique, so that fruits produced in Lai Chau will stand out from those produced in other areas. Guidance on use of compost/manure and plant protection measures against pests and diseases attacking including spraying of tree sap and neem sap is to be given to farmers. Transfer of grafting technique to farmers is also to be done for preparation of own seedlings.

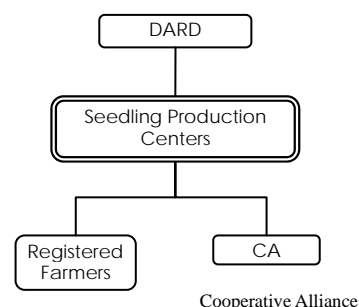
The nursery is to be directly managed by DARD. Commissioning of the nursery management to a private firm or NGO within 3 years after the start of the activities is going to be considered.

Project Area: Lai Chau Province

Priority districts of this action plan (4 districts)


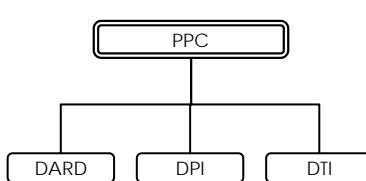





Organizations



DARD: Department of Agriculture & Rural Development
CA: Cooperative Alliance

Project Summary									
Overall Goal Income of fruit producing household in Lai Chau Province increases while clean fruits contributes to the growth of local economy Project Purpose With diversification of fruits, production of clean fruits increases				Outputs 1. Fruit tree seedlings are produced and distributed 2. The number of fruit trees in the target areas increases 3. Amount of food crop production by fruit farming household increases 4. Area of agro-forestry expands					
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
1. Production and distribution of seedlings 1-1 Baseline study of fruit producing households in Tam Duong, Phong Tho, Sin Ho and Than Uyen districts 1-2 Selection of 5 villages (20 villages in total) and registration of participating households (1,000 households in total) 1-3 12 Establishment of Village Seedling Center 1-4 Production and distribution of fruit tree seedlings		- Baseline study report - List of registered farmers - Meeting minute, Agreement record (document) - Distribution Record		<div></div>	<div></div>				
2. Production and use of organic fertilizer and insect repellents at the farm house level 2-1 Guidance on how to prepare compost and/or organic manure to farmers 2-2 Guidance on the VAC system 2-3 Production and distribution of sap-vinegar and/or sap/extraction, effective micro-organisms 2-4 Promotion of planting neem and lemongrass		- Record of farm work - Record of farm work		<div></div> <div></div> <div></div>	<div></div>				
3. Planting and management of fruit tree seedlings 3-1 Land preparation 3-2 Application of organic fertilizer 3-3 Planting of seedlings, setting up protection fences 3-4 Tendering of seedlings, pest prevention 3-5 Sowing, fertilization and harvesting of companion crops (maize, soy bean, etc.)				<div></div> <div></div> <div></div> <div></div>	<div></div>	<div></div>	<div></div>		
4. Forestation by agro-forestry trees 4-1 Aquifer, drainage ditches, and other measures for soil conservation 4-2 Land preparation, planting, protection fence 4-3 Mixed planting with rubber trees and other trees				<div></div> <div></div>	<div></div>	<div></div>	<div></div>		
5. Assistance for establishment of market channel and promotion of marketing 5-1 Establishment of market channels, government campaign to popularize the northwest brand 5-2 Monitoring and evaluation		- Posters, pamphlets (leaflets) - Monitoring report			<div></div>	<div></div>	<div></div>		
Inputs									
1. Experts on 1-1 Fruit tree cultivation 1-2 Community development 1-3 Plant pathology 1-4 Marketing and distribution 1-5 Monitoring and evaluation				2. Equipment 2-1 Equipment for technical demonstration farm 2-2 Processing equipment 2-3 Vehicle (loading capacity: 2 tons) 3. Teaching materials, Guidelines for crop cultivation, etc. 4. PC, AV and training equipment					
Recommendations									
1. Japan International Volunteer Center (JVC) has been managing a nursery and carrying out extension activities on planting technique in Coma Village in Son La Province. Cooperation with JVC is very likely to be effective. 2. For training and guidance of farmers on clean fruit production, etc., use of CLC is likely to be effective. 3. About 10 species of fruit trees are to be selected including those that grow relatively fast (papaya, blueberry, etc.) Selection is to be made, based on the interview with MARD and market study.									

Sector	Market-Oriented Agricultural Promotion		
Program	Border Trade Promotion Program		
Action Plan	Infrastructure Development in Border Area of Lai Chau Province		
Implementation Period	6 years		
Target / Area	Phong Tho District in Lai Chau Province		
Implementation Agency	PPC	Agencies Concerned	MIT, MARD, MPI
Objectives <p>Lai Chau Province has a trading route to China in Ma Lu Thang, Phong Tho District. In order to increase the border trade, local specialty products need to be developed. In the Northwest Region where the speed of industrialization is slow, crops and agro-processed products should be the main export items for the time being. Under the Market-Oriented Agricultural Promotion, efforts to improve the quality of agricultural products and make some local specialty products into future export items are needed.</p> <p>Aside from development of export items, stable development of border trade requires protection of lives of those who live in the border area and establishment/development of sustainable community programs. Arrangements are to be made so that rural infrastructure improvement will be carried out in border areas in coordination with other poverty reduction projects. Road improvement and adoption of public transport are to be prioritized with construction of infrastructure facilities for rural water, education, health, communication, etc. Occasions to raise awareness on prevention of infectious and communicable diseases (HIV-AIDS, malaria, polio) and eradication of narcotics are to be increased to safeguard healthy lives of the local residents. In coordination with 2.1 Remote Area Food Crop Production Program, increased production of food in the localities is to be promoted. If investment in border area offers only low incentives, construction of rice mills, flour mills, grain warehouses, and markets will be considered as a part of public services by the local government.</p> <p>Trading in the Northwest Region consist not only of economic activities. It serves as human and cultural exchange of ethnic groups that live on both sides of the border, as well. Activities to share sets of values are needed to give consideration for local residents, and conserve local resources as these are the bases of local development. Potential areas for tourisms, which can be considered as local development resources of the Northwest Region, are scattered in the border areas so that implementation of the Border Trade Promotion Program is to contribute to the development/success of 3.3 Rural Tourism Program.</p> <p>In this action plan, rural infrastructure improvement is to be carried out in order to improve infrastructure for distribution in Ma Lu Thang, Phong Tho District such as roads, public transport, communication, warehouses, distribution centers, etc. and reduce poverty in Phong Tho District. In addition to that, assistance activities are to be carried out to promote export of agricultural and agro-processed products of the Northwest Region which includes advertisement/promotion of specialty products of the Northwest Region to Kung Ming, China and market research to develop new commercial products.</p>			
Project Area: Lai Chau Province		Organizations	
<p>Priority districts of this action plan (2 districts)</p> 		 <pre> graph TD PPC[PPC] --> DARD[DARD] PPC --> DPI[DPI] PPC --> DTI[DTI] </pre> <p>DPI: Department of Planning & Investment DTI: Department of Trade & Industry DARD: Department of Agriculture & Rural Development</p>	

Project Summary											
Overall Goal In the border areas of Lai Chau Province, poverty reduction progresses and border trade with China grows Project Purpose The amount of trade at the Ma Lu Thang border gate increases Poverty rates of Phong Tho District decreases				Outputs 1. Specialty products of the Northwest Region are recognized in the markets in China 2. Border facilities and infrastructure for distribution in Ma Lu Thang are improved 3. Rural infrastructure improvement progresses in Phong Tho District							
Activities				Reports and Materials		Annual					
						1	2	3	4	5	6
1. Increase of border trade 1-1 Establishment of information/advertisement center to promote border trade (Exhibition of specialty products of the Northwest Region and establishment of sales stores) 1-2 Border trade promotion campaign led by the government (Internet/HP, newspaper, TV, pamphlets, local information magazines) 1-3 Transmission of information bound for China (Campaigns for specialty products of the Northwest Region and environmental conservation) 1-4 Product fair/show to discover good local specialty products (Award system, PR to trading companies, etc.) 1-5 Events for exchange with China (Cultural exchange events, Environmental conservation events)				- Exhibition, sales stores							
				- Internet/HP, newspaper, etc.							
1-3 Transmission of information bound for China (Campaigns for specialty products of the Northwest Region and environmental conservation)				- Pamphlets and posters for China							
1-4 Product fair/show to discover good local specialty products (Award system, PR to trading companies, etc.)				- Record of product fair/show							
1-5 Events for exchange with China (Cultural exchange events, Environmental conservation events)				- Planning paper and report on event							
2. Improvement of living environment in the border area 2-1 Baseline study to understand living conditions of the local residents (Establishment of GIS database)				- Baseline study report							
2-2 Improvement of transportation means (Road improvement with consideration of linkage with border gates, running of public transport)				- Annual report on road improvement activities							
				- Record/log of public transport							
2-3 Increase of rural electrification (Required for maintenance of peace/security, use of renewable energy is to be also considered)				- Annual report on electrification activities							
2-4 School construction and promotion of primary and adult education (coordination with the Ministry of Education and Training)				- Annual report on education activities							
2-5 Improvement and construction of medical facility, and improvement of public health (coordination with the Ministry of Health)				- Annual report on communication activities							
2-6 Improvement of means of communication (Expansion of cell phone service area)											
2-7 Carrying out measures to improve security (Eradication of narcotics, restrictions on undocumented aliens and migration over the national border)											
3. Environmental conservation in the border area 3-1 Improvement of facilities in the national parks and natural reserves (strengthening of tourism center) 3-2 Strengthening of surveillance system to prevent damages to environment (coordination with the border patrol/police)											
											
Inputs											
1. Experts on 1-1 Area Development 1-2 Rural Infrastructure 1-3 Marketing and Distribution 1-4 Community Development 1-5 Project Monitoring and Evaluation				2. Equipment and Material 2-1 Equipment and materials for education and training of engineers 2-2 Equipment to manage demonstration farm (AV equipment, etc.) 2-3 Farm tools and equipment to manage demonstration farm 3. Cost for workshop and training 4. Manual and teaching equipment							
Recommendations											
1. Not only to have Phong Tho District with the Ma Lu Thang border gates function as trading routes (crossing points), but also to have border trade bring positive impacts on local economy, it is necessary to improve livelihood of the local people while creating opportunities for them to participate in economic activities. As stabilization of people’s livelihood requires improvement of food security, strenuous implementation of 2.1 Remote Area Food Crop Production Program is likely to be effective.											
2. Promotion of product development that satisfies the need of Chinese market is necessary. Such promotion can be carried out in 1.1 Local Industrial Crop Production Improvement Program, 1.2 Agribusiness Promotion Program and 1.3 Safe Crops Production Program under the development issue on Market-Oriented Agricultural Promotion.											
3. As various government agencies are to involve with the promotion of border trade, efficient and smooth implementation system is likely to be established if 1) this program starts upon the initiative of MPI’s Department of Trade and Services, and 2) each program component has its own implementation agency to carry out the activities.											
4. China has been assisting Lai Chau province in expanding its road network. For this reason, it is necessary to know the Chinese assistance plan which includes other infrastructure.											
5. The national border area in the northern part of Lai Chau Province has many ethnic minorities and beautiful sceneries of natural forest. Potential for tourism development, which includes soft trekking and sports fishing, is high. For this reason, coordination with 3.3 Rural Tourism Program is likely to be effective.											

Sector	Food Security Improvement in the Northwest Region		
Program	Remote Area Food Crop Production Program		
Action Plan	Rice Production Improvement in Remote Areas of Lai Chau Province		
Implementation Period	6 years		
Target / Area	Areas in Lai Chau Province where food is not self-sufficient Priority areas are Tam Duong District and Phong Tho District		
Implementation Agency	DARD	Agencies Concerned	DPI, Agriculture Extension Center, etc.

Objectives

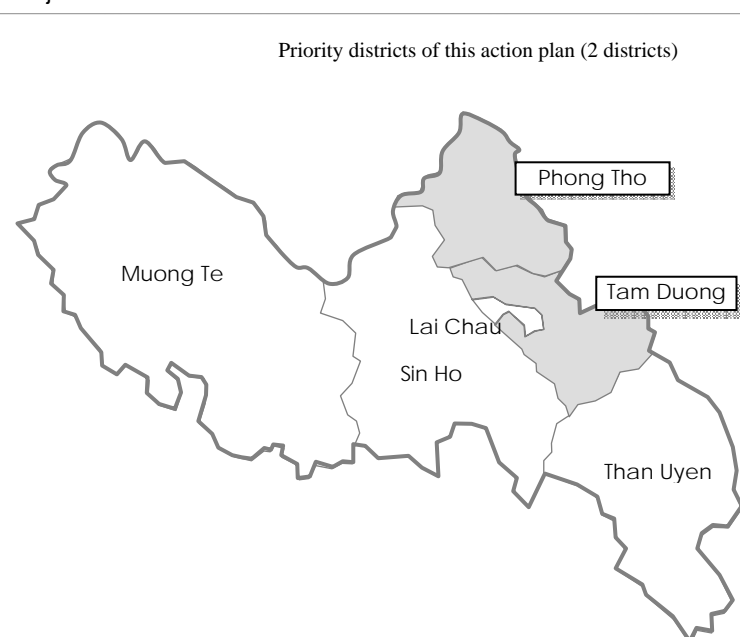
Total area of paddy cultivation in Lai Chau Province is 21,000 ha which is equivalent to only 0.07 ha per person. Average yield of paddy in Lai Chau Province is 3.9 ton/ha (2005). Like in other 3 northwest provinces, small amount of paddy production is balanced out by upland rice production. In mountainous areas where paddy field construction is difficult, upland rice is widely cultivated. The total area of upland rice cultivation in the province is 9,300 ha, but its yield is as low as 1.0 ton/ha that is about a quarter of paddy yield. Total production of paddy rice including both paddy and upland rice in the province is 93,000 ton. The amount of paddy rice supply is 290 kg (milled rice = 180 kg)/person/year which is far above the national average. However, this is based on a simple calculation, showing a balance between supply and demand. In actuality, there exists a gap among different areas. In communes where physical access is difficult and distribution system is not well-established, rice is in short supply.

In mountainous areas where rice is in short supply, people make up the deficit by eating maize, cassava, sweet potato, etc. In order to maintain food security, food crop production increase shall be promoted with paying particular attention to land suitability for crop production as well as adaptability of crops to the local conditions. The rate of annual population increase in Lai Chau is 2.2% which is much higher than the national average (1.2%). With such rate, some of the districts and communes may lose their food self-sufficiency. Increased production of food crops is, thus, an important challenge for the province.

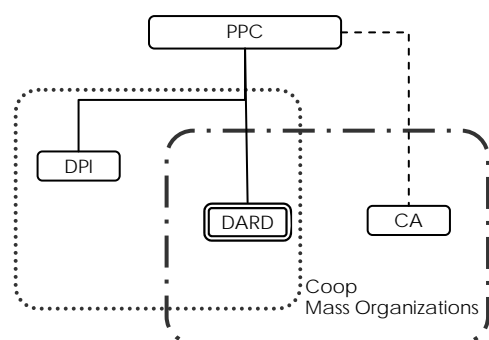
As for food crop production in the northwest, different ethnic groups cultivate different crops according to their living environment. For example, the Tai (30% of the population of the northwest) and the Muong (23%) live mainly on lowland, cultivating paddy while the Hmong and the Dao (15% total) live in mountainous areas, cultivating upland rice, maize, etc. on upland field. Increased production of rice, which is the staple food, should be the main target, but sustainable balance of food self-sufficiency should be sought through diversification of crops and technical consideration on maize, cassava, sweet potato, beans, etc. Upland rice production is recommended to be reduced because of a) little possibility for productivity revival and b) disadvantages in terms of watershed conservation and be diversified to maize and other economic crops.

Sustainable increase of food production needs development efforts on improvement of existing cultivation methods and infrastructure (irrigation development, creation of terraced paddy and upland fields, etc.). As measures that can be adopted immediately, cultivation methods should be changed, and the following measures should be taken 1) extension of good improved varieties, 2) extension of technique for appropriate use of agricultural inputs, 3) streamlining/rationalization of farm work and intensification of cropping system and 4) extension of appropriate farming tools. Among the improvement of infrastructure, creation of paddy terraces is essential. If such creation is carried out in cooperation with irrigation development work, the terraces will bring large effects. For extension of agricultural technique, agricultural extension officers, key farmers and those belonging to agricultural cooperatives, youth union, etc. are to be trained so that their technical capacity will be improved and smooth and effective system of technical transfer will be established.

Project Area: Lai Chau Province

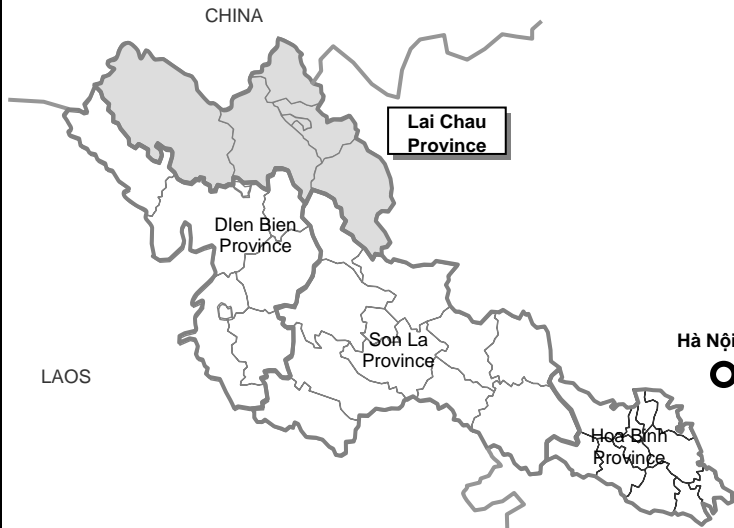
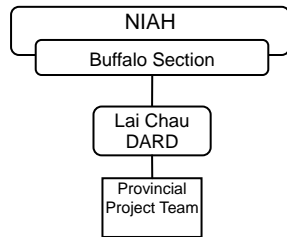


Organizations

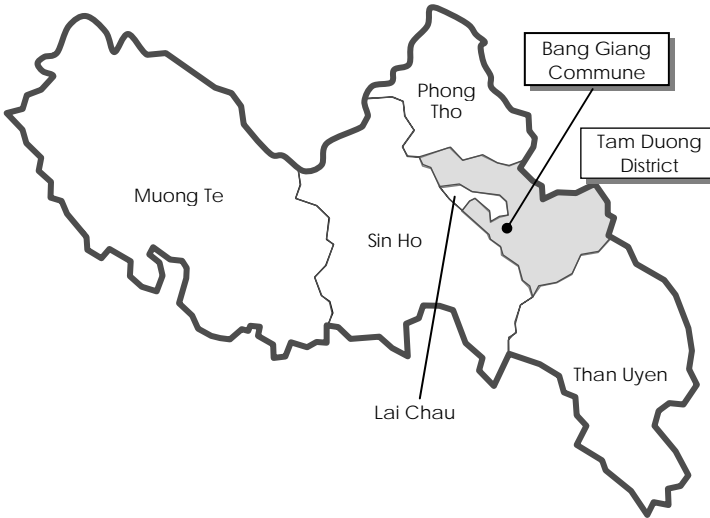
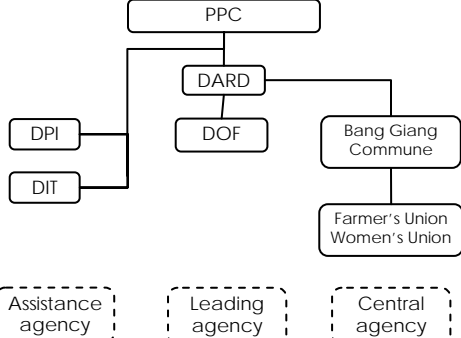


PPC: Provincial People's Committee
 DIT: Department of Industry & Trade
 DPI: Department of Planning & Investment
 DARD: Department of Agriculture & Rural Development
 CA: Cooperative Alliance

Project Summary									
Overall Goal		Outputs							
Establishment of sustainable system of food security in Lai Chau Province		1. Stable increase of rice production							
Project Purpose		2. Eradication of food-insufficient communes through increased production of food crops other than rice							
Production of major food crops is increased in a stable manner		3. Commercialization of excess products through quality improvement							
Quality of excess product for commercialization is improved									
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
1. Baseline Study for Pilot Activities									
1-1 Selection of sites by DARD		- List of selected sites							
1-2 Baseline study on assistance activities on agriculture and extension		- Baseline study report							
1-3 Review food crop cultivation technique and examination of appropriate technique		- Manual for appropriate cultivation method							
1-4 Study on farmers' organization and their activities		Pilot activity plan							
1-5 Formulation of implementation plan of pilot activities		- Letter of agreement for activity implementation							
1-6 Explanation of the plan to the people in the selected sites and consensus building									
2. Pilot activities for food self-sufficiency with rice cultivation at its center									
2-1 Training and guidance of agricultural extension staff in province and districts		- Implementation plan document							
2-1-1 Formulation of implementation plan		- Training record							
2-1-2 Training and guidance of agricultural extension officers		- Budget paper							
2-1-3 Strengthening of means of transport for agricultural extension officers, and preparation of budget for their activities									
2-1-4 Establishment and management of demonstration farm		- Organization chart, documentation on staff arrangement							
2-2 Strengthening of farmers' organizations (agricultural cooperatives) and increase of their activities									
2-2-1 Human resource development on organization management (training and guidance program)		- Activity manual for cooperatives							
2-2-2 Establishment of agricultural cooperative		- Planning paper for cooperative's activities							
2-2-3 Purchase of production materials and sales of excess products									
2-3 Measure for increased production of rice and postharvest processing									
2-3-1 Creation of paddy terraces (on a slope of less than 7-degree angle)		- Design standard of paddy terrace preparation							
2-3-2 Introduction/Adoption and extension of good varieties (including strengthening of technique of state seed companies)									
2-3-3 Improvement of cultivation method, streamlining and intensification of cultivation system		- Manual on paddy cultivation practices							
2-3-4 Introduction/Adoption and extension of organic farming		- Manual on organic farming							
2-3-5 Extension of appropriate farming tools (ruler for paddy transplanting, rotary weeders, paddy thrasher, etc.)		- Manual on use of agricultural tools							
2-3-6 Improvement of paddy dryer and rice mill units (managed by cooperative)		- Quality study on milled rice							
2-4 Measures for production increase of food crop including maize and other upland field crops									
2-4-1 Creation of non-paddy terraces (on a slope of less than 15-degree angle)		- Safe cultivation and effect of conservation of soil capability							
2-4-2 Introduction/Adoption and extension of good (including strengthening of technique of state seed companies)		- Distribution of first-generation hybrid seeds							
2-4-3 Improvement of cultivation method		- Rationalization of fertility management and effect of increased production							
2-4-4 Streamlining of cultivation system and intensification of upland farming (adoption of double cropping)		- Improvement of land productivity and diversification of crops							
2-4-5 Extension of appropriate farming tools and equipment (weeding hoes, serrated sickles, grain threshers, etc.)		- Effect of improvement of labor productivity							
3. Extension of technique for increased production of rice to other areas									
Inputs									
1. Experts on		2. Equipment							
1-1 Irrigations, Paddy cultivation		2-1 Equipment for technical demonstration farm							
1-2 Upland crop cultivation		2-2 Equipment for training and guidance of technical st							
1-3 Agricultural cooperatives		3. Teaching materials, Guidelines for crop cultivation, etc.							
1-4 Participatory development		4. Cost of workshop, training, etc.							
1-5 Monitoring and evaluation		5. PC, AV and training equipment							
Recommendations									
1. Although some farmers have been using hybrid paddy varieties from China. For the time being, measures for increased production should start with choosing appropriate varieties from ordinarily improved varieties and improving cultivation method									
2. In order to improve cultivation methods as a way to increase paddy production, existing direct-sowing method is to be changed to transplanting method. As for the existing transplanting method, planting (or crop population) density should be changed from a high (dense) one to an appropriate one. A seedling for transplanting should be a young one with 4.5 leaves (18 to20- day old). Through these measures, overall management of paddy cultivation is to be rationalized.									
3. Intensification of paddy cultivation requires improvement of infrastructure which should be carried out carefully while paying attention to the facts that investment for development tends to concentrate on paddy farming households and that cost effectiveness of the civil work and the numbers of beneficiary farmers have their limits. The geophysical features of the Northwestern Region require extremely small-scale irrigation schemes. Such schemes should be constructed through the bottom-up approach in which beneficiary households play the central role.									

Development Issue	Food Security Improvement		
Program	Animal Health and Production Improvement Program		
Action Plan	Community Dairy Farm Development in Lai Chau Province		
Duration	3 years		
Target Area /Group	Livestock Farmers in Lai Chau		
Implementation Agency	DARD	Agencies Concerned	Producer's cooperative
Background and Aim <p>The number of water buffaloes in the Region is 16% of the total in Vietnam (2007 MARD). The numbers in Dien Bien and Lai Chau Provinces are lower than those in other 2 provinces. As for beef cattle, the numbers in Dien Bien and Lai Chau Provinces are 15% of the total in the Region. The number per household is 3 to 5 (beef cattle). The Government of Vietnam provides services such as regular vaccination against foot-and-mouth disease. Because Lai Chau Province is difficult to access, and do not have enough number of DARD staff, their system of epidemics prevention is weak.</p> <p>Lai Chau Province allows cattle grazing in idle land during the day as a way to promote their cattle bank system. In this system, a minimum of 5 heads are loaned, and when a calf is born, the farmer returns the calf to DARD. In this action plan, DARD establishes a cooperative dairy farm for water buffaloes whose members are ethnic minorities. As a result, collective management of scattered water buffaloes is carried out, and training and education of farmers on cattle farming management are offered. This dairy farm will be publicized as a model farm that exercises measures against foot-and-mouth disease. The dairy farm will function as an outlet that provides safe livestock products.</p> <p>In the cooperative buffalo dairy farm, technical training is to be offered on a) biogas made from livestock feces and urine and b) organic fertilizer production. By providing fertilizer to neighboring farming households, this dairy farm serves as a demonstration farm for environmentally-sound agriculture.</p> <p>A series of short-term trainings will be provided so that many members can receive the project benefits. The dairy farm's function as a large-scale pilot farm will be improved. Services will be provided to many livestock farming households. Establishment of small-scale cooperative dairy farm at the district level will be examined.</p> <p>Establishment of cooperative dairy farm to improve livestock management in mountainous areas is in line with Strategy for Development Animal Husbandry (10/2008/QĐ-TTg) targeting 2020.</p>			
Target Area: Lai Chau Province		Organization Chart	
		 <p>NIAH: National Institute of Animal Husbandry DARD: Department of Agriculture & Rural Development</p>	

Project Summary									
Overall Goal The number of large ruminant livestock in the target area increases.				Outputs 1. Local government service on livestock become widespread 2. Rate of epidemics among large ruminant livestock decreases 3. Environmentally-sound agriculture is firmly established.					
Project Purpose Income of the small-holder farmer in the target area increases. Local government service on livestock in the Northwestern Region improves									
Activities		Reports and Materials		Year					
				1	2	3	4	5	6
1.Establishment of cooperative dairy farm for large ruminant livestock (cows and water buffaloes)									
1-1 Establishment of the cooperative dairy farm examination council by DARD									
1-1-1 Selection of farm site		- Database							
1-1-2 Reviewing of the farm size (size of input)		- Database							
1-1-3 Hearing from districts and communes, and explanation of the activities		- Guideline							
1-1-4 Establishment of management method and by-laws		- Article of association							
1-1-5 Study and training of DARD staff		- Dispatch of trainee							
1-2 Provision of local government service on livestock									
1-2-1 Construction of the dairy farm		- Building construction							
1-2-2 Training and on-the-job training of livestock management technique		- Training record							
1-2-3 Vaccination to prevent epidemics		- Record book							
1-2-4 Training and on-the-job training of disease prevention measures		- Training equipment							
1-2-5 Provision of artificial insemination service		- Record book							
1-2-6 Guidance on environmentally-sound livestock management		- Manual							
1-2-7 Management of farm running cost		- Balance sheet							
1-3 Support by local government									
1-3-1 Introduction of activities to private firms, and enticement for investment		- DARD WEB site etc							
2.Association management									
2-1 Activities of livestock farming households									
2-1-1 Formulation of management plan		- Minute							
2-1-2 Management of farm facilities		- Management record							
2-1-3 Financial management		- Balance sheet							
2-1-4 Procurement of feed and fertilizer distribution		- Management record							
2-2 Product development in cooperation with the local government									
2-2-1 Use of by-products from farm’s appurtenant facilities and market research		- Sales record, Search record							
Inputs									
1. Experts		2. Equipment and material							
1-1 Livestock management expert		2-1 Farm management equipment							
1-2 Food processing expert		2-2 Bio-Gas equipment							
1-3 Livestock propagation expert		2-3 Food processing machine							
1-4 Animal epidemic disease expert		3. Cost of workshop and training							
1-5 Community development expert		4. Manual and teaching materials							
1-6Environmental development expert		5. PC, Internet equipment							
Points of Concern for Implementation									
1. In areas where monetary economy is underdeveloped, people’s awareness should be raised that livestock farming can improve their livelihood.									
2. Livestock farmers should understand that livestock farming is always accompanied by epidemics and that their livestock may become the source of infection.									
3. The dairy farm should be managed with a consideration of traditions and habits of different ethnic groups.									
4. Intensive farming of livestock may suffer more from epidemics. Disease prevention should always be carried out.									
5. The dairy farm is to be managed collectively by member farmers. The local administration audits the association, and takes part in management when necessary in order to secure sustainability.									
6. The dairy farm should not be a facility that its members only use. It should also be a place to introduce appropriate technology by the local government.									

Sector	Food Security Improvement in the Northwest Region		
Program	Inland Fishery Supporting Program		
Action Plan	Rice Field Aquaculture Pilot Project in Lai Chau Province		
Implementation Period	3 years		
Target / Area	Bang Giang commune: 9 hamlets, 628 households, 3,100 peoples, Tam Duong District Fisheries officers, Tam Duong district and province		
Implementation Agency	Fisheries Department, DARD	Agencies Concerned	Farmer's union, Women's union, Young men's union and Veteran's union
<p>Objectives</p> <p>In Lai Chau province, there would be a great need for the development of inland fisheries to ensure the improvement of trophic sources and income generation. Therefore, it might be relevant to promote rice field aquaculture project in conjunction with agriculture and livestock support program. In order to enhance per capita fish consumption level to 4 kg from 2 kg at present level, it is needed to increase the rate of farmers who possess pond for aquaculture to 20 % from 6 % at present level and it should be required to construct more hatchery stations to provide farmers with fingerlings. However, it might not be appropriate to construct hatchery station in the commune shortly in the province, because aquaculture technology and extension service are not well available at present. It might be more relevant to implement rice field aquaculture in the province, because water is abundant but land area is limited in the small basin.</p> <p>This action plan is planned as the aquaculture development program 1 (rice field aquaculture, years 2010-2015) and involves central executive committee of communes and extant agencies (farmer's union, women's union, young men's union, and veteran's union) to initiate pilot project. Simultaneously strengthening of the administration capacity and promotion of the local technicians are considered. This program is particularly related to the supporting program of the agriculture and livestock and aquaculture project will be developed and promoted in the Lai Chau province in the unique methodologies. Long term plan until 2015 should be as follows:</p> <ol style="list-style-type: none"> 1. Project scheme will be fully discussed in the Bang Giang communes. 2. Extant rice field will be studied for their numbers, sizes and total areas. 3. Availability of water mass will be examined and possibility of future enlargement of the water mass will be estimated. 4. Necessary amount of fingerlings will be calculated. 5. Structure and scale of the nursery stations will be determined and professional staffs will be firmly assigned. 6. Market route of the product will be studied and training program for commune peoples and local fishery staffs will be established. 7. Those farmers who want to implement rice field aquaculture are supported in terms of renewal of rice field and guided by local extension staffs technically. 8. Pilot project to examine the future development of rice field aquaculture is initiated in the commune. 9. Market route of the product will be studied and training program for commune peoples and local fishery staffs will be established. 10. Management of surrounding environment condition of rice field and establishment of sustainable aquaculture model of world standard. <p>This action plan should be well consistent with the fisheries development strategic plan as approved by the prime minister and related to the SUDA (Sustainable Development of Aquaculture) project under the DANIDA.</p>			
<p>Project Area: Lai Chau province</p> 		<p>Organizations</p>  <p>PPC Provincial People's Committee DARD: Department of Agriculture & Rural Development DOF: Department of Fisheries DPI: Department of Planning & Investment DIT: Department of Industry and Trade</p>	

Project Summary											
Overall Goal 1.Increase and diversification of farmer's income 2.Sustainable development of aquaculture without hazard to environment Project Purpose 1.Development of aquaculture in the target area of the program 2. Per capita fish consumption are increased				Outputs 1. Number and areas of aquaculture ponds in rice field are well investigated 2. Hatchery stations are constructed to provide fingerlings internally 3. Those farmers who want to implement Rice field aquaculture are supported in terms of enlargement of pond and guided by local extension staffs technically. 4. Technique and knowledge for aquaculture of farmers and fisheries officers are well progressed under the training							
Activities				Reports and Materials	Annual						
					1	2	3	4	5	6	
1. Investigation of present condition of rice fields and systematic provision of water											
1-1 Investigation of rice fields											
1-1-1 Scale, number and total area of extant rice fields				- Database							
1-1-2 Estimation of capacity of water use				- Database							
1-2 Systematic provision of water to rice field aquaculture											
1-2-1 Calculation of amount of water to supply to the rice fields				- Statistics							
1-2-2 Systematic formation of water supply from catchments areas				- Water supply map							
2. Establishment of nursery station											
2-1 Production of fish seeds (fingerlings)				- Selection manual							
2-1-1 Selection of aquaculture target species				- Technology manual							
2-1-2 Determination of the scale of station				- Technology manual							
2-1-3 Assignment of professional staffs of nursery station				- Technology manual							
2-1-4 Construction of nursery station											
3. Expansion of rice field aquaculture project											
3-1 Recruitment of farmers who plan to start rice field aquaculture											
3-1-1 Selection of target farmers for subsidy				- Selection manual							
3-1-2 Training and guidance of aquaculture project				- Texts for training							
3-1-3 Initiation of aquaculture project				- Statistics of production							
3-2 Investigation of marketing rout											
3-2-1 Survey of the present marketing rout, development of new rout including export				- Marketing map							
3-2-2 Training tour to advanced area (Yunnan)				- Report of tour							
3-3 Countermeasure to fish disease											
3-3-1 Guidance by professional fish disease counselor				- List of medicines							
3-3-2 Acquisition and stock of the medicines for fish disease											
4. Consideration of microfinance											
4-1 Examination of aquaculture management				- Aquaculture manual							
4-1-1 Estimation of initial and running costs				- Balance sheet							
4-1-2 Income from products											
4-2 Possibility of microfinance				- Microfinance manual							
4-2-1 Research of the former experience of success and failure				- Balance sheet							
4-2-2 Construction of microfinance system											
5. Capacity development of fisheries officers, DARD											
5-1 Training of fisheries officer to guide the aquaculture technology											
5-1-1 Training for aquaculture technique				- Guidance manual							
5-1-2 Training for fish disease				- Guidance manual							
5-1-3 Training for storage method of fishes				- Guidance manual							
5-1-4 Training for fish processing and marketing				- Guidance manual							
6. Development of sustainable aquaculture											
6-1 Management of environment											
6-1-1 Management of surrounding environment condition				- Guidance manual							
6-2 Consideration of sustainable aquaculture											
6-2-1 Progress of sustainable aquaculture				- Guidance manual							
6-2-2 Establishment of sustainable aquaculture model				- Industry model							
6-2-3 Broadcasting the sustainable aquaculture				- Homepage							
Inputs											
1. Experts on				2. Equipment for pilot activities							
1-1 Project manager				2-1 Hatchery station, Fish disease research center							
1-2 Seeds production of freshwater fishes				2-2 Material for pond construction							
1-3 Aquaculture technique and fish disease				2-3 Material for seeds production							
1-4 Marketing				2-4 Medicine for fish disease							
1-5 Environment conservation				2-5 Manual and texts							
Recommendations											
1 This program should be consistent with the national fisheries development master plan and those of four provinces.											
2. After the detailed examination of the former failure experiences, the chief staffs should be well supported technically and physically to let the project be successful											
3. Under the recent tendency of aquaculture, the sustainable aquaculture has been started which is composed of four main keys, culture of low tropic level fishes, use of vegetable foods for fishes, integrated aquaculture united to agriculture and livestock, and small scale and extensive aquaculture. This program also aims to follow this world tendency. Attention should be paid for conservation of biodiversity. Hybrid species and rainbow trout are not adopted in this project.											
4. The program should be well combined with related agencies and unions and traditions and cultures of communes should be highly considered as grass root scale.											
5. Imbalance of risk and profit between minority groups should be avoided under the social consideration procedure.											

Sector	Local Revitalization and Diversification of Income Sources		
Program	Non-Timber Forest Products (NTFPs) Promotion Program		
Action Plan	Introduction of Integrated NTFP Management in Lai Chau Province		
Implementation Period	6 years		
Target / Area	Mường Tè district, Sìn Hồ district and Than Uyên district. DARD and district officials engaged in NTFP and Cooperatives engaged in production/processing of NTFP		
Implementation Agency	DARD (Sub-DOF)	Agencies Concerned	NTFP Research Center, Cooperative Alliance (CA), etc.

Objectives

Main NTFPs produced in Lai Chau province are bamboos, rattans and spices / medicinal plants. Bamboos are to be used not only as foodstuff but as raw materials for construction, handicrafts, etc. Production volume of other NTFPs, including spices and medicinal plants, which are cultivated in the farmlands and collected from the protection forests, are not so high enough to export to outside of the region but enough to consume inside the region/province. It is said to be one of the reasons for low transportation to the outside market as low-level preservation techniques of NTFPs. According to the results of experimental planting of multi-purpose trees and medicinal plants/herbs by RENFODA project, which are being conducted by JICA in Hoa Binh province (scheduled to be end by September, 2008), some new NTFPs would be introduced into the Northwestern region.

According to the current production of NTFPs in Lai Chau province and results of the aforementioned RENFODA project, assistances for those activities, such as 1) Grasping resource volume of NTFPs, 2) Improving production techniques, 3) Improving processing techniques, 4) Opening up new markets, and 5) Establishing cooperatives, will be conducted for the following NTFPs in the districts of Mường Tè, Sìn Hồ and Than Uyên.

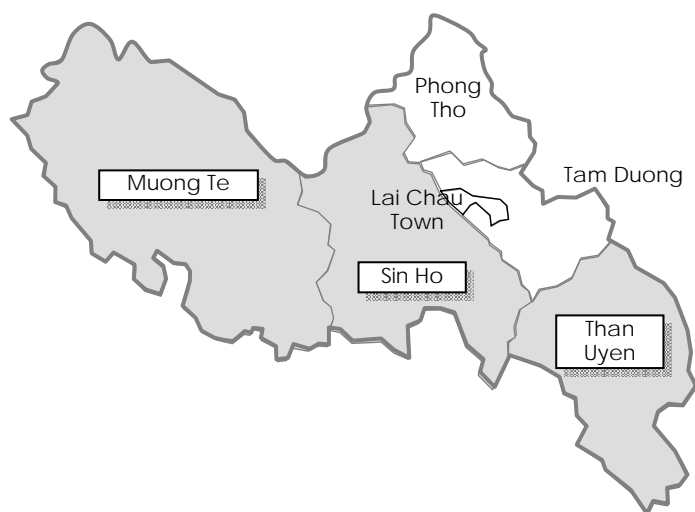
- Medicinal plants (Sa nhân, Thảo quả): Mường Tè, Sìn Hồ and Than Uyên districts
- Bamboo (Tre nứa, luồng): Mường Tè district
- Rattan (Song, mây): Mường Tè and Sìn Hồ districts
- Lac (Cánh kiến): Mường Tè and Sìn Hồ districts
- Tung oil tree (Trầu): Mường Tè and Sìn Hồ districts

Especially, integrated management systems should be strengthened, including techniques on preservation, production, processing and transportation.

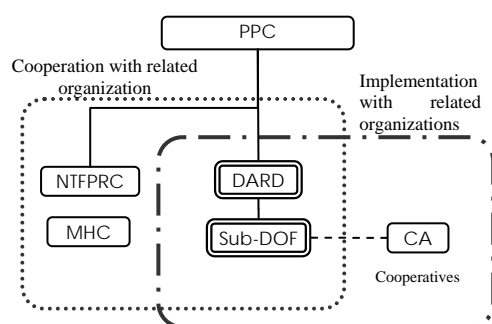
In term of 6) Introducing new kinds of NTFPs, introduction of multi-purpose tree species, such as Sấu and Trám (Trám chim, Trám trắng, Trám đen) and medicinal plants, such as Talauma Giỏi and Ba Kích will be considered.

Project Area: Lai Chau Province

Priority districts of this action plan (3 districts)



Organizations



PPC: Provincial People's Committee
 DARD: Department of Agriculture & Rural Development
 Sub-DOF: Sub-Department of Forestry of DARD
 NTFPRC: NTFP Research Center in FSIV
 MHC: Ministry of Healthcare
 CA: Cooperative Alliance

Project Summary							
Overall Goal Income sources of farmers will be diversified and increased. Products which utilize the domestic resources in the Northwester region will be increased.			Outputs 1. Standing stock and production volume of NTFP products will be grasped. 2. Stable production of NTFP products will be conducted. 3. Processing of NTFP will be conducted and market of NTFPs will be diversified. 4. NTFP Cooperative Alliances will be organized. 5. Knowledge / techniques of staff will be improved by the trainings on NTFP. 6. New kinds of NTFPs will be introduced.				
Project Purpose NTFP-related industries will be developed in the target areas. New kinds of NTFPs will be developed and produced in the target areas.							
Activities [1. Grasp of Resource Volume of NTFPs] 1-1 Grasp of standing stock of NTFPs 1-1-1 Assistance for grasping of standing stock and used volume of NTFPs 1-2 Monitoring on grasping of NTFP resource volume 1-2-1 Monitoring on grasping of NTFP resource volume [2. Promotion of NTFP production] 2-1 Production of seedlings 2-1-1 Securement / development of NTFP species suitable for Lai Chau province 2-1-2 Construction / expansion of nurseries for seedlings 2-1-3 Production of seedlings 2-1-4 Securement of production areas/plantation areas 2-1-5 Planting of seedlings 2-2 Production/storage of raw materials of NTFPs 2-2-1 Management/tending of existing production areas 2-2-2 Management and tending of planting areas 2-2-3 Trainings on production/storage techniques at existing production areas 2-2-4 Trainings on production/storage techniques at new production areas 2-2-5 Site visits to the advanced areas 2-3 Monitoring on promotion of NTFP production 2-3-1 Monitoring on promotion of NTFP production [3. Processing of NTFPs and Marketing] 3-1 Improvement of processing techniques of NTFPs 3-1-1 Grasping of existing processing techniques of NTFPs 3-1-2 Renovating of existing processing techniques of NTFPs 3-1-3 Development of new processing techniques of NTFPs 3-1-4 Renovation/Construction of processing facilities of NTFPs 3-1-5 Site visits to the advanced areas 3-2 Diversifying of market of NTFPs 3-2-1 Grasping of current market of NTFPs 3-2-2 Opening up of new market of NTFPs 3-2-3 Networking with domestic / overseas companies 3-2-4 Site visit to the advanced areas 3-3 Monitoring on improvement of processing techniques and opening-up of new market 3-3-1 Monitoring on improvement of processing and opening-up of new market [4. Establishing cooperatives for production, processing and marketing of NTFPs] 4-1 Establishing cooperatives for production, processing and marketing of NTFPs 4-1-1 Extension / enlightening of necessity of cooperatives 4-1-2 establishing the new organization set-up 4-2 Securing coherences with regulations on NTFP 4-2-1 Grasping the current legal systems on NTFP 4-2-2 Recommendations on new legal systems on NTFP 4-3 Monitoring on establishing cooperatives on NTFP 4-3-1 Monitoring on establishing cooperatives on NTFP [5. Capacity development of official staffs in Lai Chau province] 5-1 Trainers' trainings for technical extension 5-1-1 Technical training on grasping standing stock / used volume 5-1-2 technical training on seedling production 5-1-3 Technical training on production management of raw materials 5-1-4 Technical training on processing 5-1-5 Technical training on marketing [6. Introduction of new kinds of NTFPs] 6-1 Examination of new NTFPs, including market researches 6-2 Production of new kinds of NTFPs, including seedling production, plantation, tending 6-3 Processing of New kinds of NTFPs 6-4 Opening-up of new market on new kinds of NTFPs			Reports and Materials		Annual 1 2 3 4 5 6		
			- Database - Monitoring report - Technical manual, database - Nurseries - Technical manual - Plantation / production areas - Technical manual - Technical manual - Technical manual - Technical manual - Technical manual - Site visit report - Monitoring report - Database - Technical manual - Technical manual - processing facilities - Site visit report - Database - Customer list - Network - Site visit report - Feedback - Extension manual - new organizations - Database - Recommendations - Monitoring report - Training manual - Training manual - Training manual - Training manual - Training manual - New kinds of NTFPs - Technical manual - Technical manual - Database, customer list				
Inputs 1. Experts on 1-1 I Social development 1-2 Product processing/Food processing 1-3 Forestry/NTFPs 1-4 Marketing 1-5 Organization set-up 1-6 Training planning 1-7 Specific NTFPs (short-term) 2. Production materials 2-1 Materials for plantation 2-2 Materials for seedling production 2-3 Storage/processing of NTFPs 3. Facilities (including temporary facilities) 3-1 Nurseries 3-2 NTFP processing facilities 4. Other materials 4-1 Research for existing volume of NTFPs 5. Manuals/guidelines 6. Personal computers							
Recommendations 1. Cooperation with related authorities/organizations should be considered for integrated assistance. 2. Promotion of local NTFP species and introduction of new NTFP species should be conducted to diversify kinds of NTFPs. Participatory methods should be promoted to conduct projects, as consensus building and independence of residents are necessary for sustainable resource management. 3. Producers-oriented production activities should be promoted by means of establishment of corporative, strengthening of existing organizations and human resources, and strengthening of relationships with clients. 4. Adequate assistances, such as dispatching individual experts for each NTFP species, on the basis of experts' judgment, as different methods be applied to each NTFP species on cultivation, tending and processing. 5. Coherence with National Plan on Non-Timber Forest Product (NTFP) Development and Conservation (2005-2020) and results of RENFODA project should be considered.							

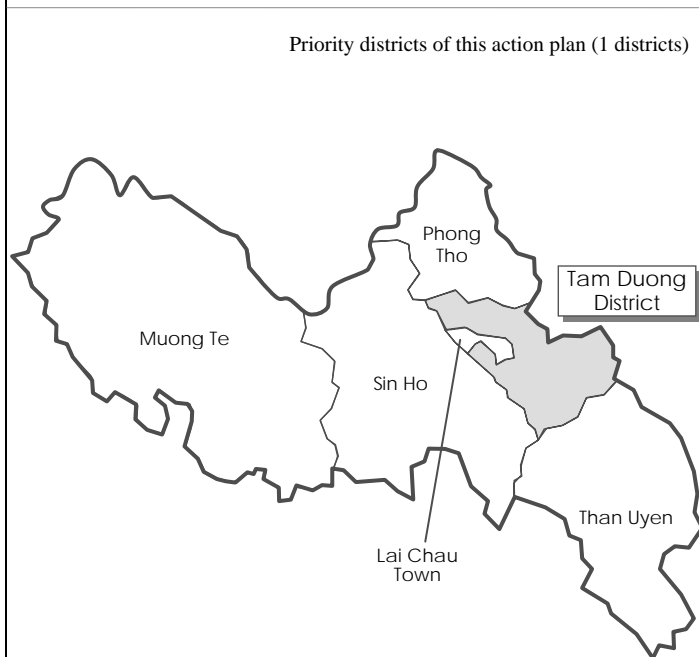
Sector	Local Revitalization and Diversification of Income Sources		
Program	Handicraft and Cottage Industry Promotion Program		
Action Plan	Promotion of Handicraft and Food Processing at CLC in Lai Chau Province		
Implementation Period	6 years (Phase 1: Pilot Project Phase 2: Extension over the Whole Area)		
Target / Area	Concerned personnel of Commune Learning Center (CLC) in Tam Duong District, Lai Chau Province and Mass Organizations (Cooperatives, Women's Union, Youth Union)		
Implementation Agency	DARD	Agencies Concerned	DIT, Cooperative Alliance, Agricultural Extension Center, etc.

Objectives

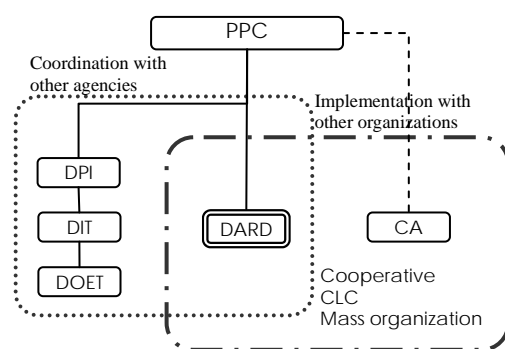
This action plan consists of Phase I and Phase II, and carries out a pilot scheme in which the existing businesses and organizations such as cooperatives and mass organizations serve as entry points. The focus of this action plan is capacity development of local government officers and technical extension officers.

Trainings and workshops on handicraft production, food processing, etc. for farmers in off-farm season and women have been conducted at CLCs in Lai Chau Province. Lately, local people's needs for CLC activities are diversifying and deepening, but the management side is facing problems of low expertise and small fund. This action plan targets the CLC in Ban Bo Commune in Tam Duong District. In Phase I, technical guidance is to be given for product diversification and stable procurement of materials. In Phase II, assistance in marketing is to be provided.

Project Area: Lai Chau Province



Organizations



PPC: Provincial People's Committee
 DARD: Department of Agriculture & Rural Development
 DPI: Department of Planning & Investment
 DIT: Department of Industry & Trade
 DOET: Department of Education & Training
 CA: Cooperative Alliance

Project Summary											
Overall Goal				Outputs							
Cash income sources of farming households are diversified and cash income is increased Specialty products of the Northwest Region are increased				1. TOT is conducted to develop capacity of local government officers on production assistance and marketing promotion and to reinforce local government services 2. Production of handicrafts and processed food at CLC is diversified 3. Production activities of cooperatives is activated 4. Market channels of CLC products are expanded							
Project Purpose											
Local industries in the program areas are developed Specialty products of the program areas are developed and produced											
Activities				Reports and Materials		Annual					
						1	2	3	4	5	6
【Capacity development of provincial staff in Lai Chau】 1.Training of District staffs for technical extension 1-1 Capacity development on planning (workshop for local people) 1-2 Assistance to marketing (direct from the producers) 1-3 Establishment of local network for sales promotion				- Instruction manual - Data file on markets - List of customers							
【Promotion of production of handicraft and processed food】 2. Extension of Production Improvement and Production Method 2-1 Technical training on how to process crops, NTFP, food, etc. 2-2 Technical training on traditional textile weaving 2-3 Introduction of packaging machines and improvement of package design 2-4 Study tour to the advanced region 3. Improvement of procurement of materials 3-1 Forestation and cultivation to production of raw materials of NTFPs 3-2 Technical training on farming (vegetables, fruits) 3-3 Training on production improvement of livestock raising, aquaculture, sericulture, apiculture, etc. 4. Promotion of product sales 4-1 Selection of marketing centers (hotels, restaurants, major tourism spots) 4-2 Training to promote marketing/sales (guidance on customer service, accounting, foreign languages, PC operation) 4-3 Making of logo and tags 4-4 Product fair/show and gathering for food-tasting to enhance activities 5. Training of instructors for technical extension 5-1 Selection of instructors 5-2 Technical training for technical extension 5-3 Study tour to the advanced region 6. Technical extension/expansion 6-1 Selection of target area and consensus building with beneficiaries on participatory activity 6-2 Technical transfer and practical training of agricultural extension officers/agents 6-3 Seminar for CLC members 6-4 Study tour to the advanced region				- Record of farmers' training - Mnnal for extension of traditional technique - Manual for resource management - Model farms - Extension of appropriate production technique - Improvement of packaging technique - Training/Meeting of farmers - Improvement of packaging technique - Gathering for sales, gathering for food tasting - Mnnal							
Inputs											
1. Experts on 1-1 Social development 1-2 Agricultural and food processing 1-3 Handicrafts, etc. 1-4 Vegetable cultivation 1-5 Forestry and NTFP 1-6 Agricultural products, food processing, handicrafts, etc.				2. Equipment for production 2-1 Equipment and material for textile weaving 2-2 Equipment and material for forestation 3. Packaging machine (Vacuum packing machine, Machine to print label and manufactured date) 4. Manual and teaching material 5. PC, Internet equipment 6. Cost for training and observation							
Recommendations											
1. Project implementation agencies should coordinate with the relevant departments and organizations so that comprehensive assistance will be provided.											
2. For product diversification, new production methods using locally available materials are to be introduced and extended.											
3. As sustainable resource management requires initiative of the local residents and consensus building by them, activities are to be carried out using participatory development methods.											
4. As each product and activity requires a different method of assistance, appropriate assistance is to be given based on experts' judgment.											
5. Follow-up activities of Program 2-1 are to be carried out in Phase II.											

Sector	Local Revitalization and Diversification of Income Sources		
Program	Rural Tourism Program		
Action Plan	Green Tourism Promotion in Lai Chau Province		
Implementation Period	3 years		
Target / Area	Staff of Department of Culture, Sports and Tourism (DCST), Residents of Than Uyen District, Muong Te District, Sin Ho District and Tam Duong District		
Implementation Agency	Department of Culture, Sports and Tourism (DCST),	Agencies Concerned	DPI, DIT, DARD, Cooperative Alliance, etc.

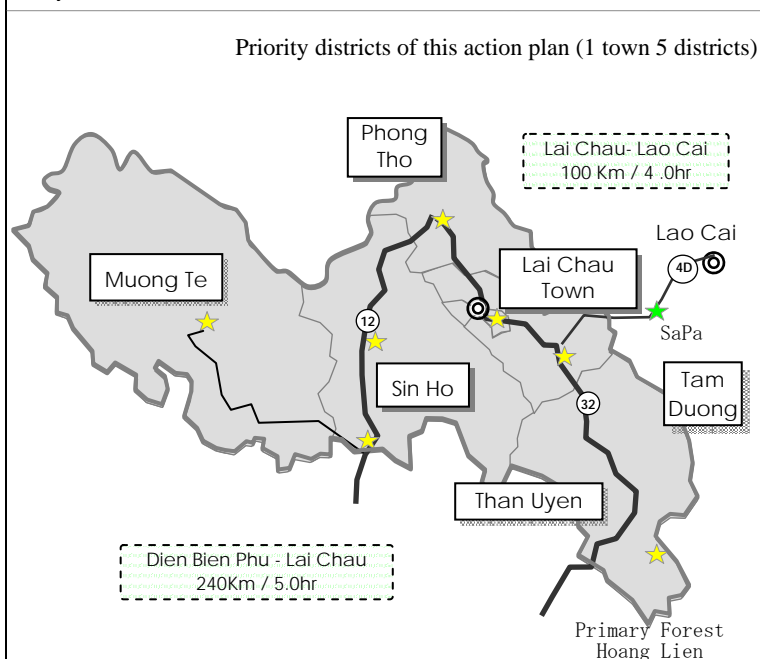
Objectives

Under the restructuring of the Vietnamese government, the tourism sector of the Ministry of Trade and Tourism was transferred to the Ministry of Culture and Sports in August 2007. As a result, Department of Culture, Sports and Tourism (DCST) under the PPC became the responsible organization for tourism development at the provincial level. DCST is not fully developed in its administrative and management capacity on tourism. This action plan carries out a pilot activity on tourism development in each of the 4 provinces of the Northwest Region while focusing on organizational strengthening of DCST. This action plan is to pay special attention to smooth transfer of know-how owned by Department of Trade and Industry (DTI), which has experience with the study on national tourism master plan (2004), to DCST. As for PR activities on tourism, promotions are to be carried out not by each province, but by the Northwest Region to publicize the whole area.

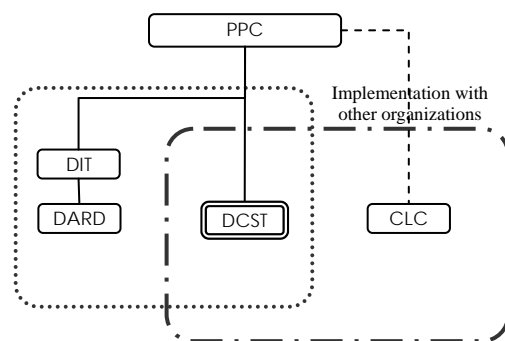
Lai Chau Province is located between Dien Bien Phu in Dien Bien Province and Sa Pa in Lao Cai Province both of which are the major tourist destinations in the Northern Vietnam. Although Lai Chau Province has wonderful tourist resources including beautiful sceneries and diverse cultures of mountain ethnic groups, not many tourists come to the province due to its slow progress of road improvement. Development of tourist villages for green tourism is thought to be effective in attracting more tourists. From now on, improvement and expansion of road network with a view to developing tourism is needed.

In this action plan, human resource development on green tourism is to be carried out in tourist villages selected by each district. In coordination with the Handicraft and Cottage Industry Promotion Program, tourism villages where people can experience textile weaving and pottery making are to be set up while posh handicraft products with the motif of traditional patterns of ethnic minority groups are to be developed. Through introduction of restaurants of ethnic cuisine and souvenir shops, opportunities to take part in tourism industry are created for the local residents. Activities that deepen tourists' understanding of ethnic groups and contribute to preservation of the traditional cultures are to be included. In Sa Pa, the local government is pushing hard on improvement of the legal system in relation to tourism development and assistance to business and NGO activities. Lessons learned from these activities should be used effectively. For long-term development of the province, improvement of basic infrastructure, medical/health facilities, tourism facilities as well as measures to maintain peace and security will be needed.

Project Area: Lai Chau Province



Organizations



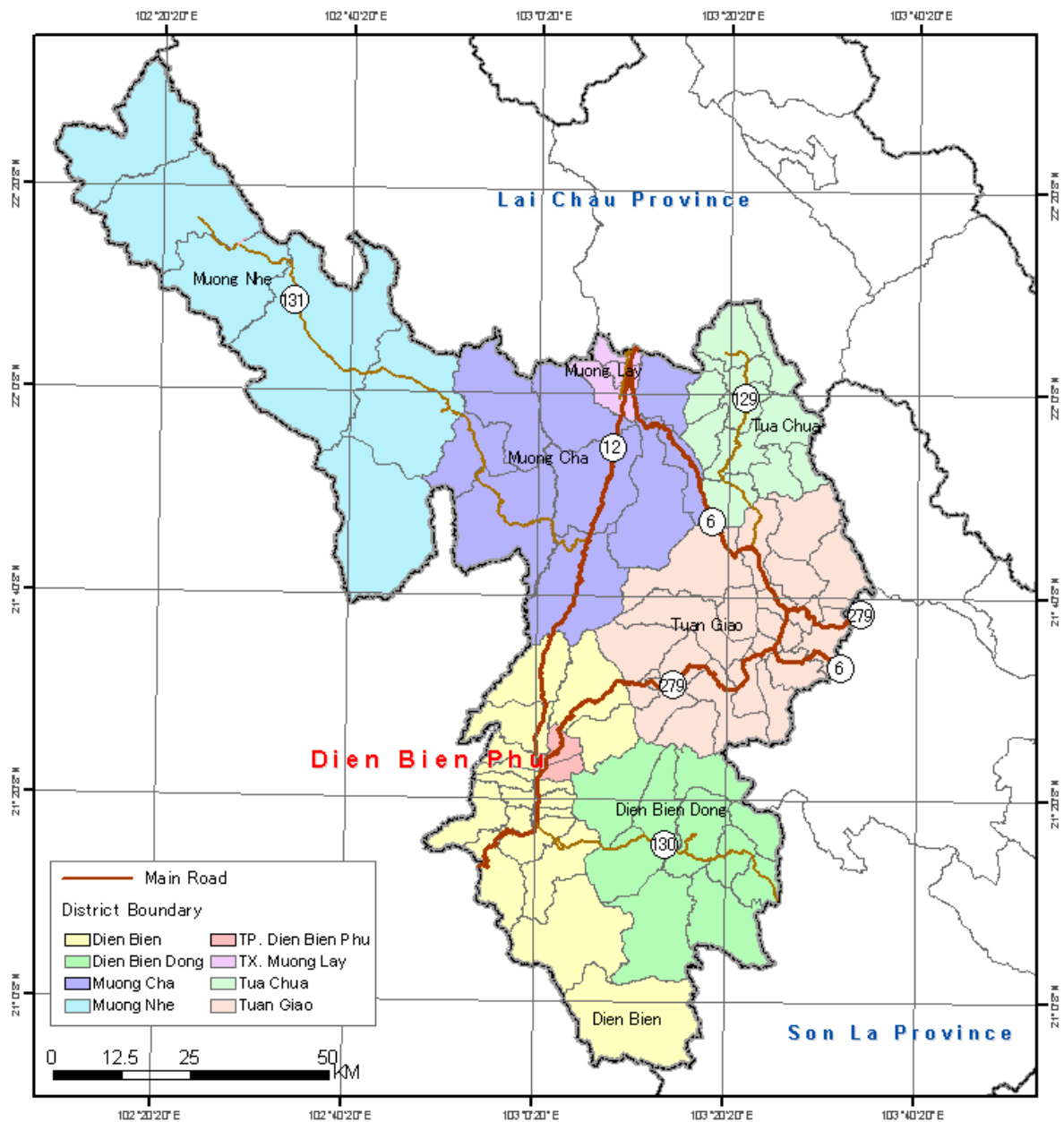
DCST: Department of Culture, Sports and Tourism
 DIT: Department of Industry & Trade
 DARD: Department of Agriculture & Rural Development
 CA: Cooperative Alliance
 CLC: Community Learning Center

Project Summary								
Overall Goal While the tourism in the Northwest Region is activated, income sources of farming households are diversified with increased income.			Outputs 1. Capacity of DCST on tourism development is improved 2. Rural tourism and green tourism are carried out (pilot activities) 3. Marketing targeting tourists is carried out 4. Tourism in the Northwest Region is promoted 5. PPP schemes to develop tourism infrastructure are examined					
Project Purpose Tourism is activated in the Program target areas. The number of tourists in the Program target areas is increased.								
Activities			Reports and Materials		Annual			
			1	2	3	4	5	6
1. Capacity development of DCST staff 1-1 Setting up guidelines on rural tourism development 1-2 Collection of data on tourism development in the province 1-3 Capacity development on rural tourism with participation of local residents 1-4 Strengthening of cooperation with other agencies (DCI, DOT, DARD)			- Guidelines for provinces - Report of basic study - Training record - Minute of consultation meeting					
2. Human resource development on rural tourism and green tourism 2-1 Explanation meeting on rural tourism, and awareness study through workshop 2-2 Selection of target area, and consensus building among the local residents concerning implementation 2-3 Language lessons (English, Vietnamese) 2-4 Guidance on management of guest houses, restaurants, etc. 2-5 Establishment of organization to start business on ethnic cuisine, performing arts, etc., and training			- Workshop record - Language lesson - Manual, teaching material - Manual, teaching material					
3. Tourism promotion 3-1 Establishment of information center in Hanoi and Dien Bien 3-2 Creation of information ads, pamphlets and tourism maps 3-3 Product fair/show and gathering for food tasting to promote sales 3-4 Holding of events under the theme of ethnic cultures 3-5 Establishment of information/explanation boards			- Information center - Pamphlets - Campaign - Events - Information boards for tourism					
4. Improvement of infrastructure for tourism expansion 4-1 Examination to run buses that follow a circular route among tourist destinations 4-2 Establishment of tour courses for motorcycles and fuel stations 4-3 Improvement of communication environment (radio tower, internet)			- Bus that follows a circular route - Motorcycle, fuel station - Radio tower, PC					
Inputs								
1. Experts on 1-1 Tourism 1-2 Social development 1-3 Socio-economy. 1-4 Handicrafts and food processing 1-5 Marketing and distribution			2. Equipment and material for pilot activities 2-1 Equipment for infrastructure improvement 3. Cost for workshop and training 4. Teaching material, guidelines on crop cultivation					
Recommendations								
1. Monitoring of local residents’ awareness and willingness, and sensitization of local residents are needed for development of rural tourism. Consensus building and active participation of the residents are also needed. For these activities, promotion of participatory methods is to be done.								
2. Development of specialty and local products is to be the key to success of rural tourism development: dairy food (soft ice-cream, yoghurt), processed meat and fish (ham, sausage, smoked food), alcoholic beverage (beer, wine)								
3. Development of agro-rural tourism based on natural environment and unique cultures of ethnic minorities is to be carried out. Linkage with the primary industry is to be strengthened especially.								
4. Through the coordination with the related departments and agencies as well other provinces, integrated assistance is to be provided.								

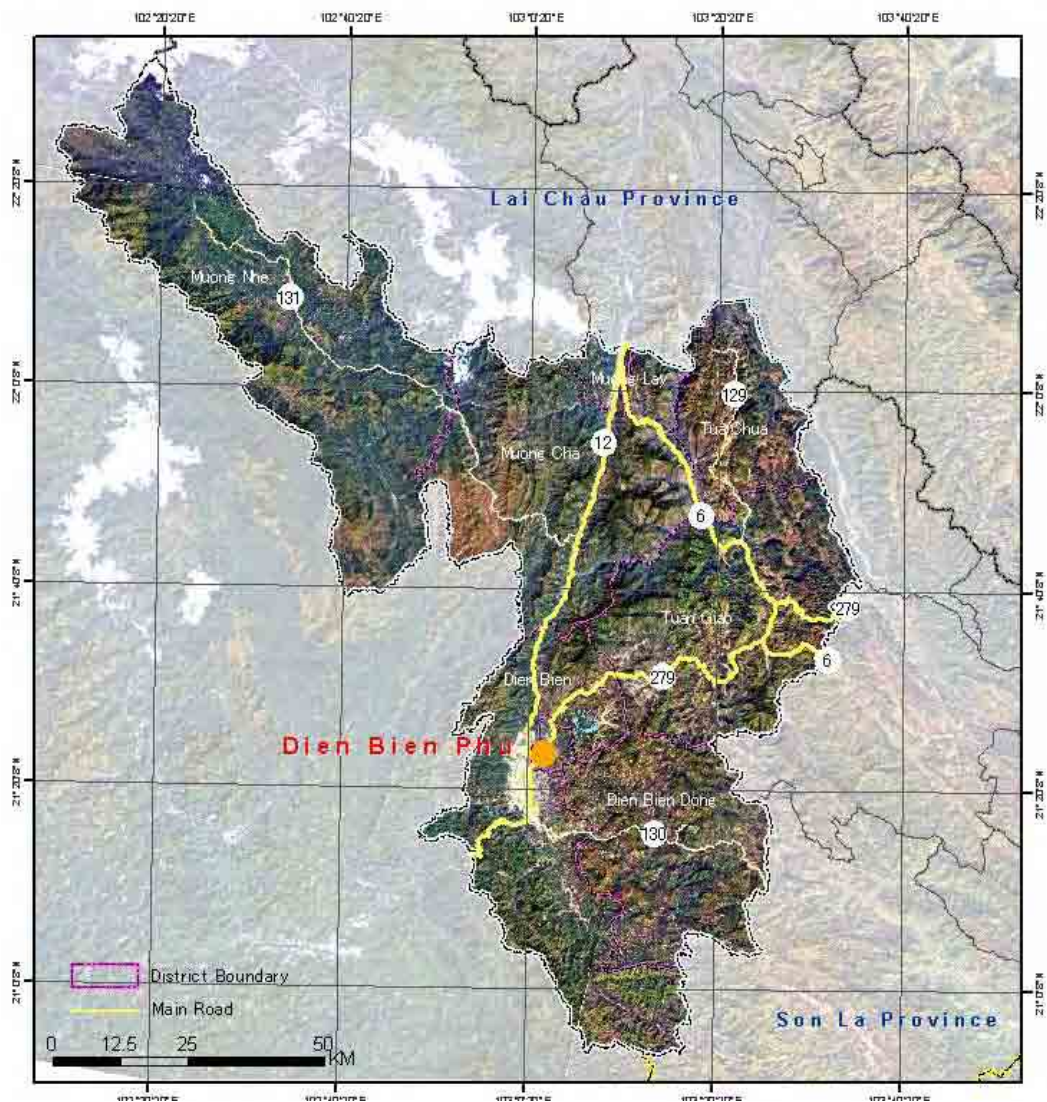
11.4 Action Plan for Dien Bien Province

Dien Bien Province

Provincial Master Plan Programs
Action Plans(2010-2015)



Administration Boundaries and Major Road Networks



Satellite Image of Dien Bien Province



3D Landscape of Dien Bien Province

Action Plans for Dien Bien Province

1. Current Conditions of Dien Bien Province

Dien Bien Province was established in 2004. Before that, it was a part of Lai Chau Province. The province covers the area of 9,563 km². Its population is 468,000 and its population density (49 persons / km²) is low. (Population density of the Region is 71 persons/ km²) Ethnic groups found in the province include Thai (40% of the provincial population), Hmong (31%), Kinh (20%) , Khomu (4%) and Lao (1%). Seventy-nine percent (79%) of the workforce is engaged in agriculture. GDP per capita in 2005 was US\$273, the highest among the provinces in the Region.

The road from Hanoi to Dien Bien, which goes through Hoa Binh and Son La, is 470 km long (National Road No. 6, and 279). It takes one hour from Hanoi to Dien Bien Phu by air (2 regular flights a day), and the province enjoys the best access condition. About 200,000 tourists from Vietnam and overseas come to Dien Bien Phu every year to visit its historical sites.

Like Lai Chau Province, the average elevation of the province is high. Ninety-one percent (91%) of the province is located between 500 and 1,500 m above sea level. Fifty-four percent (54%) of the land area is slope land of over 30 degrees. The province has 3 major rivers including the Da River. About 60% of the provincial areas is in the Da River basin. The Ma River and the Nua River, which is a tributary of the Mekong River, start from the province. Watershed conservation is an urgent issue as the forest coverage ratio is only 39 %.

Provincial GDP in 2005 was 1.951 trillion VND, which is equal to 18% of the total GDP of the Region. The primary industry accounts for 37% of the GDP. Reliance on agriculture is the smallest among the provinces in the Region. Cultivated area occupies 12% (118,000 ha) of the whole province. Among the cultivated area are upland field (100,000 ha), paddy field (14,000 ha) and orchard, etc. (4,000 ha), accounting for 85%, 12% and 3%, respectively.

Production amount of paddy and upland rice with husks was 128,000 tons in 2005. This is equal to 185 kg of rice without husks per person, which is above the national average of 168 kg. Some parts of the province have rice shortage which is supplemented by maize and tubers. Many kinds of industrial crops including tea, coffee, cotton, and soy bean are cultivated. Dien Bien rice is a famous local specialty product of the province.

2. Action Plans Proposed

Establishment of safe vegetable production model in the Region

Except for the traditional industrial crops and rice, Dien Bien Province does not have commercial crops with high added values that were made into brands. The province's challenges for future include finding and adopting commercial crops that greatly contribute to regional development. If a crop, whose sales price is comparable to the airborne cost between Dien Bien Phu and Hanoi airports, is found and produced, it will be a case example of modern agriculture with high added values for not only Dien Bien Province, but the whole Region as well.

Based on the increasing needs for safe agricultural products in Hanoi, an action plan proposes production assistance on clean vegetables. Production and sales of safe vegetables are proposed not as agribusiness promotion, but a way to a) reduce production cost through cutting back the use of chemical fertilizer and agrochemical and b) promote awareness of safe food. In order to have farmers accept new agricultural

technique, commitment by the government is necessary. An action plan proposes government-led organic fertilizer production which utilizes by-products from the agro-processing industry and livestock feces and urine.

Agribusiness with immediate effects: Improvement of rice milling

Agribusiness is already taking place in Dien Bien Province which involves production of cooking oil, starchy flour, bamboo pulp, soy bean products and coffee processing. An action plan focuses on increase of added values of Dien Bien rice which is already established as a brand. For quality improvement of milled rice, several things should be done against a) degradation of stored paddies due to incomplete drying process, and b) the increased rate of broken rice due to deteriorated rice mills. Unless these things are done, rice farmers cannot fully benefit from the high quality rice. A value chain needs to be established through the cooperation of private rice mills and farmers. For this, rice milling through the experimental use of high-grade rice milling machine is necessary to know the market reactions. An action plan proposes a pilot project on this matter under the leadership of the local government. This action plan is very likely to bring immediate effects.

Increased food production and improved diet in remote area

Food security in Dien Bien Province is an important issue as roads within the province and roads to outside are not in good conditions. From a viewpoint of food security, agriculture should be developed under the theme of “local production for local consumption”. An action plan is proposed to increase food crop production in the remote areas through the combination of a) development of small-scale irrigation in agricultural land in valleys and terrace field and b) provision of quality seeds.

Livestock farming of cows for meat, water buffalo, pigs, chickens, etc. is widely practiced in Dien Bien Province. Because of its location near the national border, prevention of livestock disease is a major challenge of the province. Strengthening of services for livestock health is proposed as a region-wide action plan which should be carried out by the provinces in the Region. To carry out a local government service, provincial wide promotion of livestock farming is proposed. Under this promotion, communal livestock farms that utilize idle land are established to provide livestock feed and offer livestock services.

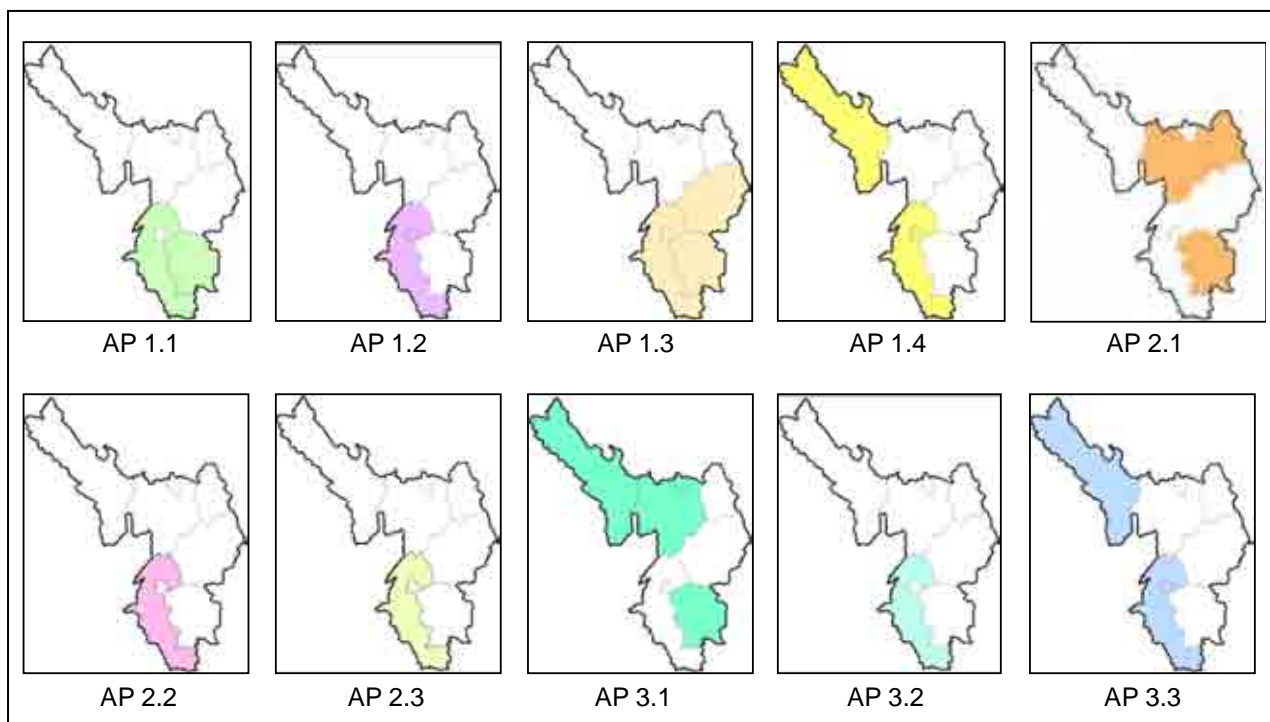
In Dien Bien Province, small-scale pond aquaculture for household consumption is carried out in areas where water sources and land are available. As good fries are scarce, an action plan proposes a pilot project to establish a hatchery and strengthen pond aquaculture technique.

Development of diverse local industries

In Dien Bien Province, production activities that do not rely on land resources should be adopted and promoted. For this reason, promotion of NTFP is very important. An action plan is proposed to strengthen the comprehensive management system of NTFP such as medical herbs, spices, rattan, lac and bamboos.

Dien Bien Province has the greatest number of tourism resources in the Region. Tourism development leads to not only activation of the area (area development), but also creation of business chances for the related industries. For this reason, coordination of tourism development and promotion of local industries in rural areas is likely to be important. Focusing on handicraft production and food processing, action plans aim to support development of souvenirs for tourists and establishment of market channels as the secondary occupations of local farmers and women’s groups. Activities to preserve cultures and traditions of minority ethnic groups are to be included, also.

Sector	Master Plan Programs	Action Plan	Page
Dien Bien Province Master Plan			
1. Market-Oriented Agricultural Promotion	1.1 Industrial Crop Production Improvement Program	AP1.1 Quality and Yield Improvement of Tea	11-36
		AP1.1 Quality Improvement of Coffee	11-38
	1.2 Agribusiness Promotion Program	AP1.2 Quality Improvement and Marketing Dien Bien Rice	11-40
	1.3 Safe Crop Production Program	AP1.3 Establishment of Clean Vegetable Center	11-42
2. Food Security Improvement	1.4 Border Trade Promotion Program	AP1.4 Infrastructure Development in Border Area	11-44
	2.1 Remote Area Food Crop Production Program	AP2.1 Rice Production Improvement in Remote Areas Area	11-46
	2.2 Animal Health and Production Improvement Program	AP2.2 Animal Health Control	11-110
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3. Revitalization and Diversification of Income Sources	2.3 Inland Fishery Supporting Program	AP2.3 Pond Aquaculture Pilot Project	11-50
	3.1 NTFP Promotion Program	AP3.1 Introduction of Medicinal Plants	11-52
	3.2 Handicraft and Cottage Industry Promotion Program	AP3.2 Community-based Handicrafts and Food Industry	11-54
	3.3 Rural Tourism Program	AP3.3 Tourism Village Promotion	11-56
Regional Master Plan			
4. Environmental Conservation and Biomass Energy Development	4.1 Da River Watershed Management Program	AP4.1 Afforestation with Rubber and Other Useful Trees and Agroforestry Promotion	11-112
	4.2 Natural Forest Conservation Program	AP4.2 Management of Special-Use Forests and Establishment of New Nature Reserves	11-114
	4.3 Biomass Energy Promotion Program	AP4.3 Introduction of Biomass Energy Production	11-116
5. Irrigation and Water Supply Development	5.1 Water User Organization Strengthening Program	AP5.1 Water User's Organization (WUO) Strengthening Pilot Project	11-118
	5.2 Mountain Stream Water Use Program	AP5.2 Mountain Stream Multipurpose Use Pilot Project	11-120
6. Rural Road Development	6.1 Rural Road Maintenance Program	AP6.1 Rural Road Operation and Maintenance Pilot Project	11-122
7. Rural Electrification	7.1 Renewable Energy Development Program	AP7.1 Renewable Energy Development Pilot Project	11-124
8. Capacity Building	8.1 Provincial Staff Training for 5 Year Plan Preparation	AP8.1 Formulation of 5-Year Agriculture and Rural Development Plan	11-126
	8.2 Rural Information Database Establishment Program	AP8.2 Northwestern Region GIS Establishment Project	11-128



Action Plan Coverage Maps

Sector	Market-Oriented Agricultural Promotion		
Program	Local Industrial Crop Production Improvement Program		
Action Plan	Quality and Yield Improvement of Tea in Dien Bien Province		
Implementation Period	6 years Phase I: Implementation of Pilot Scheme, Phase II: Expansion of development schemes to the whole province)		
Target / Area	The whole area of Dien Bien Province is targeted. Tea producing farmers, related technical extension agents, tea processors, etc.		
Implementation Agency	DARD	Agencies Concerned	Agricultural Extension Center, Northern Mountain Area Agro-Forestry Science & Technology Institute (Vietnam Tea Research Center), etc.

Objectives

The total extent of tea plantation in Dien Bien Province is limited to 200 ha, which is far below those of other three Provinces of the Region. Owing to its higher elevation, however, the natural conditions of Dien Bien Province are highly suitable for tea plantation with the famous Shan variety. The Dien Bien DARD envisages to introduce more tea plantation in the Province taking rapidly expanding brand value of tea from the Northwestern region. It is also noted that the governmental tea enterprise was operated in the Province for tea plantation, processing and marketing in the past.

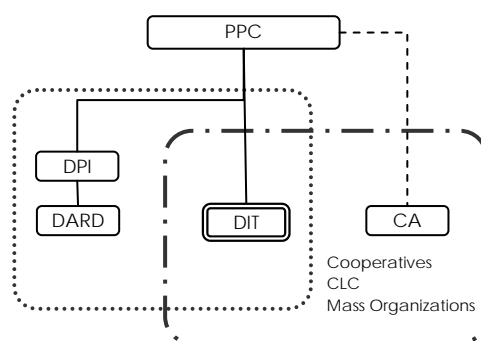
In recent years, the number of small tea farmers with planted area of 0.1 ha to 0.2 ha per household has been increased. They applied the traditional farming techniques resulting in lower unit yield of 1.2 ton/ha on an average and low quality of tea leaves. It is crucial to improve unit yield of tea leaves through efforts of the agricultural extension services.

It is highly expected that tea of the Region will continue representing the industrial crops of the Region encouraged by increasing demand of tea leaves for beverage as well as medicinal plants. In addition, tea plantation will be effective land use in terms of soil conservation of steep land and finally contribute to the watershed management of the Da and Nua rivers as a whole.

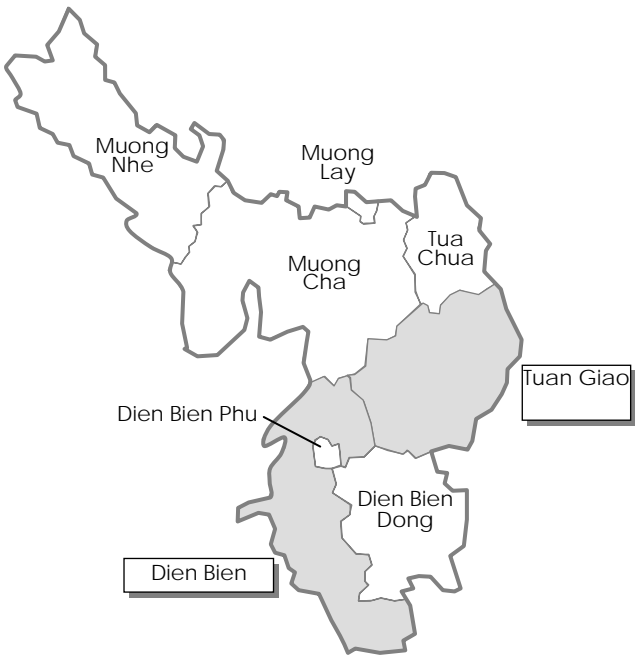
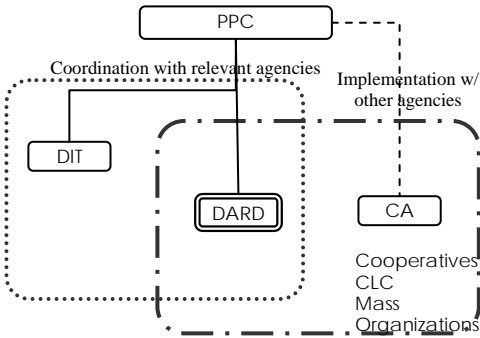
Project Area: Dien Bien Province



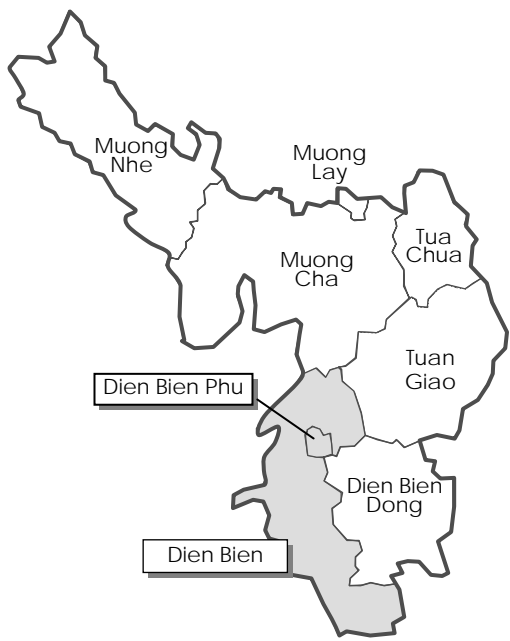
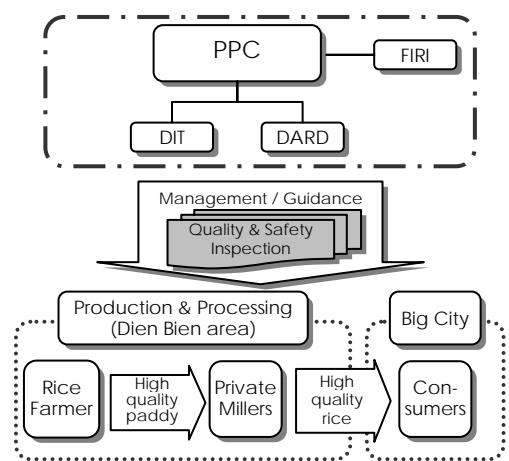
Organizations



PPC: Provincial People's Committee
 DIT: Department of Industry & Trade
 DPI: Department of Planning & Investment
 DARD: Department of Agriculture & Rural Development
 CA: Cooperative Alliance

Sector	Market-Oriented Agricultural Promotion		
Program	Local Industrial Crop Production Improvement Program		
Action Plan	Quality Improvement of Coffee in Dien Bien Province		
Implementation Period	6 years (Phase I: Pilot activities, Phase II: Expansion of activities to the whole province)		
Target / Area	The whole area of Dien Bien Province is targeted with Tuan Giao District and Dien Bien Districts as priority areas. Coffee producing farmers, related technical extension agents, coffee processors, etc.		
Implementation Agency	DARD	Agencies Concerned	DIT, Agricultural Extension Center
<p>Objectives</p> <p>Coffee cultivation in Dien Bien Province has just started. The area of coffee cultivation in the province is about 320 ha, accounting for 10 % of the coffee production in the Northwest Region. MARD announced its policy to prioritize quality improvement of coffee. Under the policy, the total coffee cultivation area in the country is to be maintained at 0.5 million ha while added value of coffee is to be increased. MARD promotes production of low-chemical and organic coffee so as to develop new coffee market. Low productive coffee plantation is recommended to diversify into rubber tree forestation. Based on thorough understanding of the market needs, this action plan aims to expand marketing channels of coffee produced in the Northwest Region while focusing on quality improvement.</p> <p>The major area of coffee production in Vietnam is the Central Highlands where robusta coffee is cultivated. In the Northwest Region, robusta was changed into Arabica lately to establish a local specialty and stand out from the other regions. In a coffee processing factory in Son La, drying and husking practice is being done for coffee bean processing. Primary processing is done in the factory in which a coffee seed is taken out from a pulp to be dried in the sun, then, a raw coffee bean comes out by peeling the outer layer of the seed. Furthermore, sorting of raw beans (green beans) and drying in the sun are repeated for adjustment/reduction of moisture contents (up to 10 to 12%) so that only good green beans are distributed to the major coffee traders. For this reason, coffee produced in Dien Bien has not yet established itself as a local brand, which is considered to be a challenge in the expansion of the marketing channels.</p> <p>The largest bottleneck of coffee industry in Dien Bien is that the amount of purchase of coffee beans by the factory is unstable. Such instability makes coffee farmers uneasy and worried. According to a recent study, the amount of coffee beans bought by the factory makes the factory operate in only 30% of its full working capacity. This is due to shortage of fund to purchase coffee beans and the fact that the (low) quality of the green beans in the province does not satisfy the market needs.</p> <p>This action plan reexamines the coffee industry in the Northwest Region to benefit from new added value of coffee through quality improvement and establish a local brand with a view on market expansion in the future.</p>			
Project Area: Dien Bien Province		Organizations	
<p>Priority districts of this action plan (2 districts)</p> 		 <p>PPC: Provincial People's Committee DIT: Department of Industry & Trade DARD: Department of Agriculture & Rural Development CA: Cooperative Alliance</p>	

Project Summary											
Overall Goal Added value of coffee industry in Dien Bien and income of coffee-producing household are increased Project Purpose Coffee produced in Dien Bien Province is established as a brand well known in domestic and international market as a local specialty product of the province, and the supply system of coffee that would meet the demand is established				Outputs							
				1. Establishment and demonstration of appropriate technique for coffee cultivation (pilot activities) 2. Establishment and demonstration of appropriate technique for coffee processing (pilot activities) 3. Quality improvement of coffee in the province 4. Increase of the amount of coffee production in the province							
Activities				Reports and Materials		Annual					
Productivity improvement scheme for coffee plantation 1. Baseline study and planning of pilot schemes (50 ha x 2 sites) 1-1 Baseline study on agricultural conditions (cultivation technique and household economy) among coffee producers 1-2 Study on coffee purchases and domestic and international trade 1-3 Quality standard of raw materials, establishment of quality and price, production technique and issues to overcome 1-4 Selection of pilot scheme areas, designing of scheme and consensus building 2. Implementation of coffee bean production pilot scheme 2-1 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation method, etc. 2-2 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods, technical training, etc.) 2-3 Introduction of appropriate farming tools (shears or scissors for pruning, sprayer for pest control, etc.) 2-4 Measures to improve and strengthen the institutional supporting services for coffee production (including farmers' organization, institutional financing, etc.) 2-5 Improvement of primary processing facilities 2-6 Establishment of production center (quality improvement, improved efficiency of procurement of raw materials and processing) 2-7 Government campaign to establish market channels and popularize the northwest brand 2-8 Monitoring and evaluation of the activities 3. Training and guidance of coffee production technique for agricultural extension staff, etc. 3-1 Technical transfer and practical training of provincial and district agricultural extension officers 3-2 Practical training and guidance of extension workers and key farmers through operation and management of the demonstration farm 3-3 Technical transfer on appropriate coffee processing practices to processing engineers 4. Extension to other districts 4-1 Selection of target area and consensus building on activity implementation 4-2 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation methods, etc. 4-3 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods, technical training, etc.) 4-4 Introduction of appropriate farming tools (shears or scissors for pruning, sprayer for pest control, etc.) 4-5 Strengthening of farmers organization and promotion to bring in financial institutes 4-6 Improvement of primary processing facility, and establishment of commercial product processing facility 4-7 Establishment of production center and a brand				- Baseline study report - Report on coffee market study - Data on quality and price standards - Pilot activity proposal - Guidelines for local government - Seedlings of appropriate varieties - Extension materials for coffee farmers - Farming tool instruction leaflets - Demonstration farm - Campaign, posters - Records of studies on quality and yield - Record of farm activity, data on crop yield - Training record, Work record of processing factory - Annual report		1	2	3	4	5	6
Inputs				2. Material and equipment for pilot activities 2-1 Material and equipment for technical demonstration farm 2-2 Processing equipment 2-3 Vehicle (loading capacity: 2 tons) 3. Teaching materials, Guidelines for crop cultivation, etc. 4. PC, AV and training equipment							
1. Experts on 1-1 Industrial crop (Coffee) 1-2 Coffee processing technique 1-3 Processing machines 1-4 Marketing/Distribution system 1-5 Agricultural cooperative 1-6 Monitoring and evaluation											
Recommendations											
1. Establishment of production center/area should not be carried out in a top-down manner. Instead, it should be done while the farmers understand the market needs. Expected results will not be attained without organizing farmers or changing their ways of thinking concerning their acceptance of local government services. Adoption of community development approaches is essential.											
2. Although coffee production has been going on in Dien Bien Province, accumulated know-how from basic studies and experiments hardly exists. For this reason, implementation of the pilot scheme shall be carried out first in the priority districts while receiving technical assistance from the Northern Mountain Region Agricultural and Forestry Technology Institute.											
3. Currently, coffee seedlings are supplied to farmers by the state coffee farm as one of its work functions. However, the amount for supply is not enough due to low working capacity of the nurseries. To overcome the situation, farmers are producing their own seedlings. Seedlings are not cut evenly (irregular size), thus, are not healthy and good seedlings. Preparation of good seedlings of recommended/good varieties and their distribution are urgently needed.											

Sector	Market-Oriented Agricultural Promotion		
Program	Agribusiness Promotion Program		
Action Plan	Quality Improvement and Marketing of Dien Bien Rice		
Implementation Period	6 years		
Target / Area	Private sectors and rice farmers who are aiming to produce and distribute high quality Dien Bien Rice.		
Implementation Agency	DARD	Agencies Concerned	DIT, FIRI, DAPSI
Objectives <p>Development of the agribusiness which is mainly composed of agro-processing is indispensable, for industrialization of Northwestern regions towards 2020. The agribusiness promotion program proposed by a master plan is the program which premised introduction of the private capital, and the private-sector firms which have an investment incentive to Northwestern regions is indispensable. Under the strong initiative of the administration towards Northwestern regions development, and while regularization of the law system and establishment of the enterprises under Government-private sector cooperation, to specify the success example at an early stage is wished.</p> <p>With this action plan, quality-management support is carried out for both rice millers, rice traders and material rice growers, who are aiming to increase the quality of Dien Bien rice which is a specialty product of Dien Bien Province. At Dien Bien Phu suburbs with rich water resources, good quality paddy is harvested, however by inappropriate drying and storage process, huge amount of paddy and rice is lost. And also private rice mills are remarkably superannuated and the rice milling yield and quality are low.</p> <p>Retail price of Dien-Bien rice is 16,900 VND/kg which is 1.6 times with ordinary dealt rice of 11,000 VND/kg, by this fact, it can be said that it has already succeeded in branding. The glutinous rice which is staple food of the ethnic of a northwestern part is 17,500 VND/kg.</p> <p>This action plan aims to improve and produce higher quality Dien Bien rice and sell to wealthy groups in high prices, which proves high added value of the rice. During actual proof investigation, rice farmers will confirm the importance of the quality management of the paddy, while rice millers will confirm high quality milled rice generate new added value. During these activities, staffs of DARD and agricultural extension center will extract the subject of agricultural technique instruction towards improvement of quality of paddy. On the other hand, MPI-DPI performs required administrative services to maintain the investment-environment of private sectors.</p>			
Project Area: Dien Bien Province		Organizations	
<p>Priority Areas of this Action Plan (One Town and One District)</p> 		 <p>DIT: Department of Trade & Industry DARD: Department of Agriculture & Rural Development FIRI: Food Industry Research Institute</p>	

Project Summary							
Overall Goal			Outputs				
1. The income of farmers will be diversified, increased and stable. 2. The differentiated specialty product is produced by utilizing the resources peculiar to Northwestern regions.			1. Since preferential treatment is planned by the Government authorities to the rice farmers and private rice millers, they can tackle cultivation and processing very enthusiastically. 2. Since High quality brand rice will be produced, cash income of both rice farmers and private millers will increase. 3. Since quality inspection and safe verification will be performed by the specialized agency, consumers can secure safe and high quality rice. 4. It is consistently carried out from cultivation to post-harvest processing under proper technology, a production and processing loss decreases through a whole period.				
Project Purpose							
1. High quality Dien Bien rice will be developed and produced by private rice millers. 2. The cash income of the rice production farmers will be improved.							
Activities			Reports and Materials		Annual		
					1	2	3
1. Actual proof investigation for production and sales of high quality rice.							
1-1 Market survey of high quality rice.			- Database of client				
1-2 To deepen the awareness for quality improvement of DARD staff and rice farmers.			- Record of workshop				
1-3 To cultivate high quality paddy (Improvement of cultivation and post-harvest)			- Instruction manual				
1-4 Introduction of pilot modern rice mill (capacity: less than 1ton/hr)			- Operation manual				
1-5 Processing and produce of high quality milled rice			- High quality rice				
1-6 Development of the packages			- Package				
1-7 Sales promotion at retail shops in Hanoi			- Sales record				
1-8 Advertisement of high quality Dien Bien Rice			- Brochures				
2. Acceleration of the investment for private millers (Study at MPI level is needed)							
2-1 Tax break measure							
2-2 Promotion of practical use of long-term and low-cost loan.							
2-3 Acquisition support of industrial land							
2-4 Promotion of maintenance of an infrastructure (electricity, road)							
3. Improvement of the production environment to rice farmers							
3-1 Promotion of practical use of low-cost loan of the cultivation fund to rice farmers							
3-2 Stable supply of the seed and farming equipment at low price to rice farmers.							
3-3 Promotion of maintenance for agricultural infrastructures (paddy field, field road, irrigation equipment etc)							
4. Instruction of production management for high quality rice							
4-1 To deepen the awareness for value chain			- Instruction manual				
4-2 Unification of the production variety (Non-glutinous rice, glutinous rice)			- Instruction manual				
4-3 Rationalization of farm work, paddy drying and storage			- Instruction manual				
4-4 Quality inspection and safe verification of rice by specialized agency			- Quality/safety standard				
4-5 Purchase contract of high quality rice between farmers and millers			- Instruction manual				
4-6 Receiving of the paddy by millers			- Brochures				
5. Capacity increase of DPI and DARD							
5-1 Guidance about cultivation technology			- Instruction manual				
5-2 Guidance about production, processing and quality control technology			- Instruction manual				
5-3 Guidance about formation and expansion of sales network			- Instruction manual				
5-4 Monitoring appraisalment of overall project			- Appraisal report				
Inputs							
1. Experts on			1-7 Project appraisal / monitoring expert				
1-1 Rice cultivation expert			2. Equipment and materials for pilot project				
1-2 Rice post-harvest processing expert			2-1 Paddy dryer and storage device				
1-3 Agro-products distribution expert			2-2 Modern rice milling plant (small capacity)				
1-4 Legal system expert			2-3 4WD track for paddy collection and rice delivery (2 ton)				
1-5 Finance & taxation expert			3. Expense for workshop and training meeting etc.				
1-6 Agricultural cooperative expert			4. Teaching materials and training manual etc.				
Recommendations							
1. To improve the low system for the investment and taxation, in order both rice farmers and private rice millers will have volition to take part in the planning of.							
2. Cultivation variety should be selected from the traditional species, which local farmers can continue traditional agricultural system without uncomfortable. After some years, new varieties will be introduced.							
3. Scale of the pilot rice mill should be designed which does not press the existing private mills, and the pilot mill should be managed under the committee including managers of private mills.							
4. In production of the high quality brand rice, an organic farming should be taken in as much as possible, and "Safe Rice" is advertized to the consumers in large cities.							
5. Quality inspection and safe verification system of rice by specialized agency will be established. A severe quality management is performed and to produce final products which can obtain a consumer confidence.							
6. The Government authority's side performs fair agency so that the rice farmers and a private sectors can take part in this plan in comfort. comfort.							

Sector	Market-Oriented Agricultural Promotion		
Program	Safe Crops Production Program		
Action Plan	Establishment of Clean Vegetable Center (CVC) in Dien Bien Province		
Implementation Period	3 years		
Target / Area	Vegetable producing households in Dien Bien Province		
Implementation Agency	DARD	Agencies Concerned	Department of Crop Production (MARD) , Agricultural Extension Center, etc.

Objectives

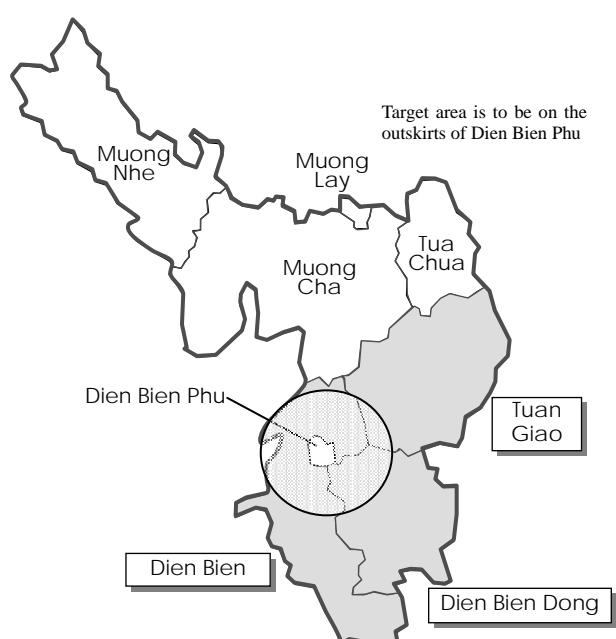
Based on the market needs for safe food, MARD started in 2006 to offer guidance on safe vegetable production in 28 provinces in Vietnam. Promotion of safe vegetables and organic farming has been taking place ever since. As a result, Da Lat, Lam Dong Province, a leading vegetable production area in Vietnam, became a production center for safe vegetables for overseas market. Volume of safe vegetable shipping from Da Lat has been increasing annually. Those vegetables from Da Lat are sold in domestic markets such as in Ho Chi Minh at about 15% higher prices, showing that added value of safe food is being recognized in Vietnam. After joining the WTO, MARD has been carrying out a policy under which crop safety above the international standard is sought, while adopting ASEANGAP which is GAP (good agricultural practice) for the 10 countries of ASEAN. MARD is preparing for VIETGAP that meets the conditions of Vietnam. Interest in safe crops is, thus, expected to increase.

With keen interest in safe vegetables, Provincial DARD of Dien Bien started activities to move toward safe vegetable production. The Plant Protection Division of DARD established a safe vegetable farm (70 ha) on the outskirts of Dien Bien Phu and started to give guidance on safe vegetable production to farmers. This M/P aims to establish production center for safe crops (especially vegetables) with involvement of private firms. As vegetable cultivation by organic farming methods requires more labor for farm management (e.g. weeding is much harder if without the use of chemical herbicide), thorough understanding of the meaning and significance of safe vegetable by farmers is needed for sustainable production. Unless the farmers acknowledge the increasing market needs for safe vegetables, and experience the price advantage comparable to their hard labor, the level of incentive (farmers' motivation) for production cannot be maintained. By using the above safe vegetable farm to establish production technique and give assistance in setting up market channels, public agencies should develop production and marketing of safe vegetables so that those vegetables become attractive to both consumers and farmers.

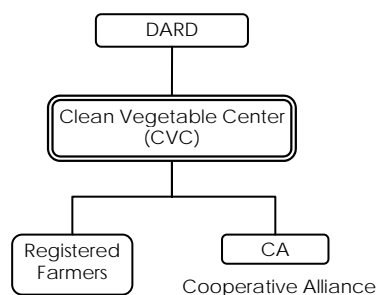
This action plan aims to establish Clean Vegetable Center (CVC) in the safe vegetable farm in order to accomplish the above-mentioned task (development of production and marketing of safe vegetables). This center is to consist of 3 units: a) technical extension, b) organic fertilizer production and c) chemical analysis. The technical extension unit is to establish and extend production technology that follows GAP. Organic fertilizer production unit is to produce organic fertilizer by using by-products of agribusiness and livestock farming and sell it. Chemical analysis unit is to certify the contents of organic fertilizer for the time being. As for the system of activity implementation, DARD of Dien Bien and its Agricultural Extension Center are to co-manage while getting assistance from Department of Crop Production in MARD which is responsible for GAP promotion.

Project Area: Dien Bien Province

Priority districts of this action plan (3 districts)



Organizations



DARD: Department of Agriculture & Rural Development
 CVC: Clean Vegetable Center
 CA: Cooperative Alliance

Project Summary									
Overall Goal		Outputs							
Production area of safe vegetable is established in Dien Bien with participation of private firms (Dien Bien become popular for its vegetable production with participation of private firms)		1. Clean Vegetable Center (CVC) is established							
Project Purpose		2. Appropriate technique for safe vegetable cultivation is established and demonstrated							
Production technique for safe vegetable is widely practiced by farmers and income of safe vegetable producing households is increased		3. The number of vegetable producing households using organic fertilizer increases							
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
1. Formulation of plan to establish Clean Vegetable Center (CVC) and its construction									
1-1 Baseline study on vegetable producing households on the outskirts of Dien Bien.		- Baseline study report							
1-2 Visit to safe vegetable producing area in Da Lat, Lam Dong Province for observation and information exchange		- Report on visit to Da Lat							
1-3 Examination of scope of CVC establishment, and consensus building with PPC		- Meeting minute, Agreement record (document)							
1-4 Compilation of planning report on CVC establishment.		- Design document							
1-5 Construction of CVC facility and installation of equipment									
2. Extension of cultivation technique of organic vegetable (1st year)									
2-1 Formulation and implementation of production plan		- Safe vegetable production plan							
2-2 Establishment of demonstration farm, making and distribution of materials for GAP extension		- Extension material							
2-3 Registration of cooperatives and farming households with desires for organic vegetable production		- List of farming households							
2-4 Group/Joint purchase of farm inputs (seeds, agrochemical)									
2-5 Cultivation of organic vegetables in demonstration farm and by registered farming households (Record agriculture)		- Record of farm work							
2-6 Group/Joint sales of products (at CVC)		- Record of study on quality and yield							
3. Promotion to produce and use organic fertilizers and insect repellents at farming household level									
3-1 Guidance on how to prepare compost and/or manure at farming household level		- Work record							
3-2 Guidance on VAC system		- Work record							
3-3 Production and distribution of sap-vinegar, effective micro-organisms (EM)		- Work record							
3-4 Promotion of planting of neem and lemongrass as one of the insect-repellents		- Work record							
3-5 Introduction of companion plants		- Work record							
4. Experimental production and distribution of organic fertilizer by CVC									
4-1 Study on procurement of raw material and procurement		- Work record							
4-2 Experimental production of organic fertilizer		- Work record							
4-3 Experiment in the demonstration farm on organic fertilizer application		- Work record							
5. Assistance to establish market channels and promote sales									
5-1 Establishment of market channels, government campaign to popularize the northwest brand		- Posters, Pamphlets/Leaflets							
5-2 Monitoring and evaluation of activities									
Inputs									
1. Experts on		2. Equipment for Clean Vegetable Center							
1-1 Crop cultivation		2-1 Equipment for technical demonstration farm							
1-2 Community development		2-2 Processing equipment							
1-3 Plant pathology		2-3 Vehicle (loading capacity: 2 tons)							
1-4 Marketing and distribution		3. Teaching materials, Guidelines for crop cultivation, etc.							
1-5 Monitoring and evaluation		4. Cost of workshop, training, etc.							
		5. PC, AV and training equipment							
Recommendations									
1. It is essential to show farmers how to produce safe vegetables in the demonstration farm. This is because the farmers need to understand the meaning and significance of organic farming (i.e. safe food and reduction of production cost) before they are fully motivated to produce safe vegetable. Such community development approach is crucial.									
2. Multiple Cropping Center (MCC) at Chiang Mai University’s Department of Agriculture in northern Thailand is likely to be a good model for CVC. From 2003, JICA carried out a 3-year technical assistance project “The project for Appropriate Technology for Reduction of Agrochemical in Northern Thailand (ATRACT)” at Chiang Mai University. Experiences and lessons learned from this project can be utilized in effectively.									
3. In CVC, management of organic fertilizer production unit is recommended to be partially commissioned to private firms in order to utilize their know-how on the matter.									
4. Interview with MARD-affiliated agencies and marketing study are to be done thoroughly because crop selection is going to be the key component. For the time being, prospective crops include baby corn, asparagus, lettuce, petit tomato, pumpkin, white radish, shallot, garlic, red radish, sweet potato, etc.									
5. Large-scale irrigation facility is not needed. Watering by handy pot (watering can) is going to be the basic watering method. Those farming households far away from the water source should use pedal-pump (foot-operated pump).									

Sector	Market-Oriented Agricultural Promotion		
Program	Border Trade Promotion Program		
Action Plan	Infrastructure Development in Border Area of Dien Bien Province		
Implementation Period	6 years		
Target / Area	Dien Bien District District in Dien Bien Province		
Implementation Agency	PPC	Agencies Concerned	MIT, MARD, MPI

Objectives

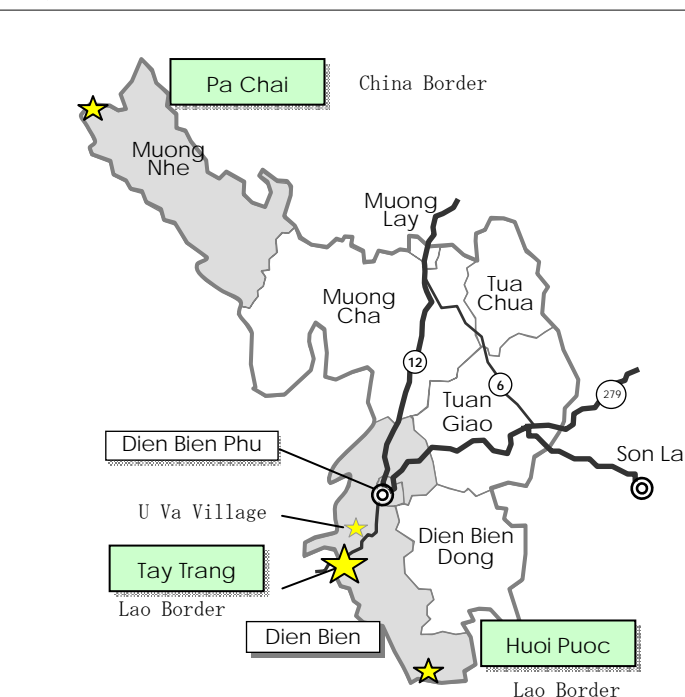
Dien Bien Province shares the national borders with Lao People's Democratic Republic (Laos) and People's Republic of China (China). Border trade is officially carried out in Tay Trang in Dien Bien District that lies next to Laos. The total amount of trade in 2006 was US\$ 1.4 million, which is extremely small in scale. Huoi Puoc in Dien Bien District and Pa Chai in Muong Nhe District also share the national borders with Laos and China, respectively. Although they both have roads to the neighboring nations, the border points/gates are currently not open.

In order to increase the border trade, local specialty products bound for China and Laos need to be developed. Agricultural products are to be made into local specialties under the programs proposed in this M/P such as 1.1 Local Industrial Crop Production Improvement Program, 1.2 Agribusiness Promotion Program, and 1.3 Safe Crops Production Program. Some of these local specialties should be developed into export products which will dominate the future trade with China.

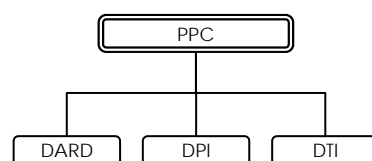
Aside from development of export products, stable development of border trade requires a) protection of lives of those who live in the border area and b) establishment/development of sustainable community programs. Compared to other areas, border areas in the Northwest Region have high poverty rate and their living environment is underdeveloped. For this reason, arrangements need to be made so that rural infrastructure improvement will be carried out in border areas in coordination with other poverty reduction projects. Road improvement and adoption of public transport are to be prioritized with construction of infrastructure facilities for rural water, education, health, communication, etc. Increased occasions to raise awareness on prevention of infectious and communicable diseases (HIV-AIDS, malaria, polio) and eradication of narcotics are also necessary to safeguard healthy lives of the local residents, and maintain the social norms and peace/security. Increased production of food in the localities is to be promoted in coordination with 2.1 Remote Area Food Crop Production Program. Construction of rice mills, flour mills, grain warehouses, and markets will be considered as a part of public services by the local government. Improvement of border facilities for border security, immigration control, customs service, and animal and plant health inspection service in Tay Trang is also necessary.

In this action plan, rural infrastructure improvement is to be carried out in order to improve infrastructure for distribution such as roads, public transport, communication, warehouses, distribution centers, accommodation for long-distance truck drivers, etc. and reduce poverty in Dieng Bien District where Tay Trang is located. In addition to these, assistance activities are to be carried out to increase export of agricultural and agro-processed products from the Northwest Region. These activities include advertisement of local specialty products of the Northwest Region bound for Laos, and market research to develop new commercial products.

Project Area: Dien Bien Province


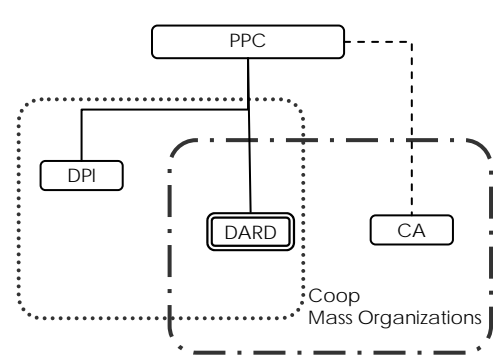


Organizations

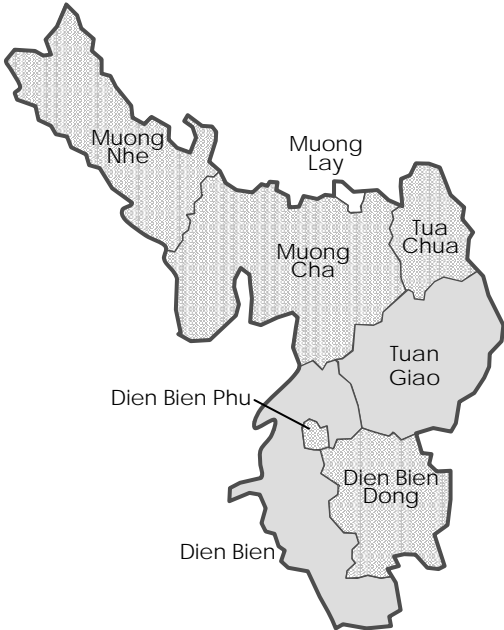
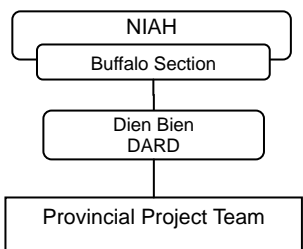


DPI: Department of Planning & Investment
 DTI: Department of Trade & Industry
 DARD: Department of Agriculture & Rural Development

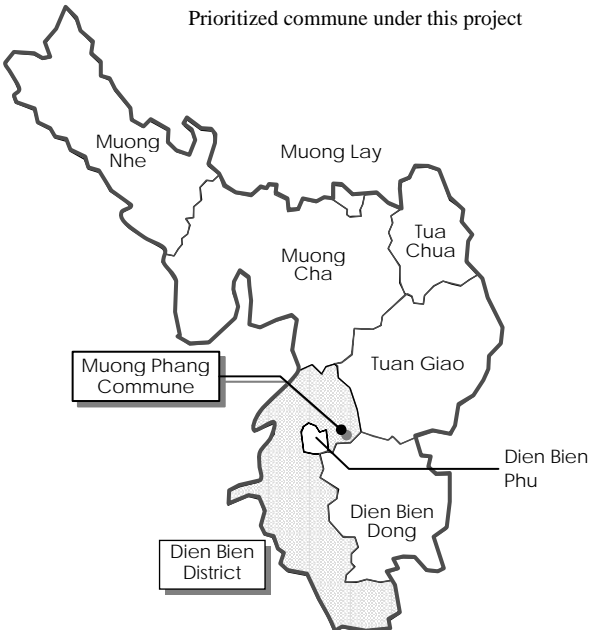
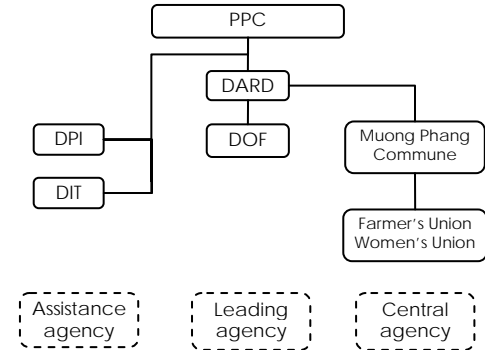
Project Summary											
Overall Goal				Outputs							
In the border areas of Dien Bien Province, poverty reduction progresses and border trade with China grows				1. Specialty products of the Northwest Region are recognized in the markets in China							
Project Purpose				2. Border facilities and infrastructure for distribution in Tay Trang, Dien Bien District are improved							
The amount of trade with Laos at the Tay Trang border gate increases				3. Rural infrastructure improvement progresses in Dien Bien District							
Poverty rates of Dien Bien District decreases											
Activities				Reports and Materials		Annual					
						1	2	3	4	5	6
1. Increase of border trade				- Exhibition, sales stores							
1-1 Establishment of information/advertisement center to promote border trade (Exhibition of specialty products of the Northwest Region and establishment of sales stores)				- Internet/HP, newspaper, etc.							
1-2 Border trade promotion campaign led by the government (Internet/HP, newspaper, TV, pamphlets, local information magazines)				- Pamphlets and posters for China							
1-3 Transmission of information bound for China (Campaigns for specialty products of the Northwest Region and environmental conservation)				- Record of product fair/show							
1-4 Product fair/show to discover good local specialty products (Award system, PR to trading companies, etc.)				- Planning paper and report on event							
1-5 Events for exchange with China (Cultural exchange events, Environmental conservation events)											
2. Improvement of living environment in the border area				- Baseline study report							
2-1 Baseline study to understand living conditions of the local residents (Establishment of GIS database)				- Annual report on road improvement activities							
2-2 Improvement of transportation means (Road improvement with consideration of linkage with border gates, running of public transport)				- Record/log of public transport							
2-3 Increase of rural electrification (Required for maintenance of peace/security, use of renewable energy is to be also considered)				- Annual report on electrification activities							
2-4 School construction and promotion of primary and adult education (coordination with the Ministry of Education and Training)				- Annual report on education activities							
2-5 Improvement and construction of medical facility, and improvement of public health (coordination with the Ministry of Health)				- Annual report on communication activities							
2-6 Improvement of means of communication (Expansion of cell phone service area)											
2-7 Carrying out measures to improve security (Eradication of narcotics, restrictions on undocumented aliens and migration over the national border)											
3. Environmental conservation in the border area											
3-1 Improvement of facilities in the national parks and natural reserves (strengthening of tourism center)											
3-2 Strengthening of surveillance system to prevent damages to environment (coordination with the border patrol/police)											
Inputs											
1. Experts on				2. Equipment and Material							
1-1 Area Development				2-1 Equipment and materials for education and training of engineers							
1-2 Rural Infrastructure				2-2 Equipment to manage demonstration farm (AV equipment, etc.)							
1-3 Marketing and Distribution				2-3 Farm tools and equipment to manage demonstration farm							
1-4 Community Development				3. Cost for workshop and training							
1-5 Project Monitoring and Evaluation				4. Manual and teaching equipment							
Recommendations											
1. Not only to have Dien Bien District with the Tay Trang border gates function as trading routes (crossing points), but also to have border trade bring positive impacts on local economy, it is necessary to improve livelihood of the local people while creating opportunities for them to participate in economic activities. As stabilization of people’s livelihood requires improvement of food security, strenuous implementation of 2.1 Remote Area Food Crop Production Program is likely to be effective.											
2. As various government agencies are to involve with the promotion of the border trade, efficient and smooth implementation system is likely to be established if 1) this program starts upon the initiative of MPI’s Department of Trade and Services, and 2) each program component has its own implementation agency to carry out the activities.											
3. The western part of Dien Bien District is the home of many ethnic minorities. It has attractive tourism spots such as hot spring in U Va Village and limestone caves as well. For this reason, coordination with 3.3 Rural Tourism Program is likely to be effective.											

Sector	Food Security Improvement in the Northwest Region		
Program	Remote Area Food Crop Production Program		
Action Plan	Rice Production Improvement in Remote Areas of Dien Bien Province		
Implementation Period	6 years		
Target / Area	Areas in Dien Bien Province where food is not self-sufficient Priority areas are Muong Cha District and Tua Chua, Dien Bien Dong District		
Implementation Agency	DARDs	Agencies Concerned	DPI, Agriculture Extension Center, etc.
<p>Objectives</p> <p>Average yield of paddy in Dien Bien Province is 4.7 ton/ha (2005), the highest figure among the provinces in the northwest. Total area of paddy cultivation in Dien Bien Province is 22,000 ha which is equivalent to only 0.05 ha per person. Like in other 3 northwest provinces, small amount of paddy production is balanced out by upland rice production. In mountainous areas where paddy field construction is difficult, upland rice is widely cultivated. The total area of upland rice cultivation in the province is 18,000 ha, but its yield is as low as 1.2 ton/ha that is about a quarter of paddy yield. Total production of paddy rice including both paddy and upland rice in the province is 128,000 ton. The amount of paddy rice supply is 280 kg (milled rice = 180 kg)/person/year which is far above the national average. However, this is based on a simple calculation, showing a balance between supply and demand. In actuality, there exists a gap among different areas. In communes where physical access is difficult and distribution system is not well-established, rice is in short supply.</p> <p>In mountainous areas where rice is in short supply, people make up the deficit by eating maize, cassava, sweet potato, etc. In order to maintain food security, food crop production increase shall be promoted with paying particular attention to land suitability for crop production as well as adaptability of crops to the local conditions. The rate of annual population increase in Dien Bien is 2.2% which is much higher than the national average (1.2%). With such rate, some of the districts and communes may lose their food self-sufficiency. Increased production of food crops is, thus, an important challenge for the province.</p> <p>As for food crop production in the northwest, different ethnic groups cultivate different crops according to their living environment. For example, the Tai (30% of the population of the northwest) and the Muong (23%) live mainly on lowland, cultivating paddy while the Hmong and the Dao (15% total) live in mountainous areas, cultivating upland rice, maize, etc. on upland field. Increased production of rice, which is the staple food, should be the main target, but sustainable balance of food self-sufficiency should be sought through diversification of crops and technical consideration on maize, cassava, sweet potato, beans, etc. Upland rice production is recommended to be reduced because of a) little possibility for productivity revival and b) disadvantages in terms of watershed conservation and be diversified to maize and other economic crops.</p> <p>Sustainable increase of food production needs development efforts on improvement of existing cultivation methods and infrastructure (irrigation development, creation of terraced paddy and upland fields, etc.). As measures that can be adopted immediately, cultivation methods should be changed, and the following measures should be taken 1) extension of good improved varieties, 2) extension of technique for appropriate use of agricultural inputs, 3) streamlining/rationalization of farm work and intensification of cropping system and 4) extension of appropriate farming tools. Among the improvement of infrastructure, creation of paddy terraces is essential. If such creation is carried out in cooperation with irrigation development work, the terraces will bring large effects. For extension of agricultural technique, agricultural extension officers, key farmers and those belonging to agricultural cooperatives, youth union, etc. are to be trained so that their technical capacity will be improved and smooth and effective system of technical transfer will be established.</p>			
Project Area: Dien Bien Province		Organizations	
<p>Priority districts of this action plan (3 districts)</p> 		 <p>PPC: Provincial People's Committee DIT: Department of Industry & Trade DPI: Department of Planning & Investment DARD: Department of Agriculture & Rural Development CA: Cooperative Alliance</p>	

Project Summary							
Overall Goal				Outputs			
Establishment of sustainable system of food security in Dien Bien Province				1. Stable increase of rice production			
Project Purpose				2. Eradication of food-insufficient communes through increased production of food crops other than rice			
Production of major food crops is increased in a stable manner				3. Commercialization of excess products through quality improvement			
Quality of excess product for commercialization is improved							
Activities				Reports and Materials			
1. Baseline Study for Pilot Activities 1-1 Selection of sites by DARD 1-2 Baseline study on assistance activities on agriculture and extension 1-3 Review food crop cultivation technique and examination of appropriate technique 1-4 Study on farmers' organization and their activities 1-5 Formulation of implementation plan of pilot activities 1-6 Explanation of the plan to the people in the selected sites and consensus building 2. Pilot activities for food self-sufficiency with rice cultivation at its center 2-1 Training and guidance of agricultural extension staff in province and districts 2-1-1 Formulation of implementation plan 2-1-2 Training and guidance of agricultural extension officers 2-1-3 Strengthening of means of transport for agricultural extension officers, and preparation of budget for their activities 2-1-4 Establishment and management of demonstration farm 2-2 Strengthening of farmers' organizations (agricultural cooperatives) and increase of their activities 2-2-1 Human resource development on organization management (training and guidance program) 2-2-2 Establishment of agricultural cooperative 2-2-3 Purchase of production materials and sales of excess products 2-3 Measure for increased production of rice and postharvest processing 2-3-1 Creation of paddy terraces (on a slope of less than 7-degree angle) 2-3-2 Introduction/Adoption and extension of good varieties (including strengthening of technique of state seed companies) 2-3-3 Improvement of cultivation method, streamlining and intensification of cultivation system 2-3-4 Introduction/Adoption and extension of organic farming 2-3-5 Extension of appropriate farming tools (ruler for paddy transplanting, rotary weeders, paddy thrasher, etc.) 2-3-6 Improvement of paddy dryer and rice mill units (managed by cooperative) 2-4 Measures for production increase of food crop including maize and other upland field crops 2-4-1 Creation of non-paddy terraces (on a slope of less than 15-degree angle) 2-4-2 Introduction/Adoption and extension of good (including strengthening of technique of state seed companies) 2-4-3 Improvement of cultivation method 2-4-4 Streamlining of cultivation system and intensification of upland farming (adoption of double cropping) 2-4-5 Extension of appropriate farming tools and equipment (weeding hoes, serrated sickles, grain threshers, etc.) 3. Extension of technique for increased production of rice to other areas							
				Annual			
				123456			
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Development Issue	Food Security Improvement		
Program	Animal Health and Production Improvement Program		
Action Plan	Community Dairy Farm Development in Dien Bien Province		
Duration	3 years		
Target Area /Group	Livestock Farmers in Dien Bien		
Implementation Agency	DARD	Agencies Concerned	Producer's cooperative
<p>Background and Aim</p> <p>The number of water buffaloes in the Northwestern Region is 16% of the total in Vietnam (2007 MARD). The numbers in Dien Bien and Lai Chau Provinces are lower than those in other 2 provinces. As for beef cattle, the numbers in Dien Bien and Lai Chau Provinces are 15% of the total in the Northwestern Region. The number per household is 3 to 5 (beef cattle). The Government of Vietnam provides services such as regular vaccination against foot-and-mouth disease. Because Dien Bien Province is difficult to access, and do not have enough number of DARD staff, their system of epidemics prevention is weak.</p> <p>In this action plan, the cooperative dairy farm for water buffaloes in Lai Chau province (prior project) will be regarded as a model. In Dien Bien Province, DARD establishes a cooperative dairy farm for water buffaloes whose members are ethnic minorities. As a result, collective management of scattered water buffaloes is carried out, and training and education of farmers on cattle farming management are offered. This dairy farm will be publicized as a model farm that exercises measures against foot-and-mouth disease. The farm will function as an outlet that provides safe livestock products.</p> <p>In the cooperative dairy farm for water buffaloes, technical training is to be offered on a) biogas made from livestock feces and urine and b) organic fertilizer production. By providing fertilizer to neighboring farming households, this farm serves as a demonstration farm for environmentally-sound agriculture.</p> <p>A series of short-term trainings will be provided so that many members can receive the project benefits. The farm's function as a large-scale pilot farm will be improved. Services will be provided to many livestock farming households. Establishment of small-scale cooperative dairy farm at the district level will be examined.</p> <p>Establishment of cooperative dairy farm for water buffaloes to improve livestock management in mountainous areas is in line with Strategy for Development Animal Husbandry (10/2008/QD-TTg) targeting 2020.</p>			
Target Area: Dien Bien Province		Organization Chart	
		 <p>NIAH: National Institute of Animal Husbandry DARD: Department of Agriculture & Rural Development</p>	

Project Summary							
Overall Goal The number of large ruminant livestock in the target area increases.				Outputs 1. Local government service on livestock become widespread 2. Rate of epidemics among large ruminant livestock decreases 3. Environmentally-sound agriculture is firmly established.			
Project Purpose Income of the small-holder farmer in the target area increases. Local government service on livestock in the Northwestern Region improves							
Activities	Reports and Materials	Year					
		1	2	3	4	5	6
1.Establishment of cooperative dairy farm for large ruminant livestock (cows and water buffaloes)							
1-1 Establishment of the cooperative dairy farm examination council by DARD	- Database						
1-1-1 Selection of farm site	- Database						
1-1-2 Reviewing of the farm size (size of input)	- Guideline						
1-1-3 Hearing from districts and communes, and explanation of the activities							
1-1-4 Establishment of management method and by-laws	- Article of association						
1-1-5 Study and training of DARD staff	- Dispatch of trainee						
1-2 Provision of local government service on livestock							
1-2-1 Construction of the dairy farm	- Building construction						
1-2-2 Training and on-the-job training of livestock management technique	- Training record						
1-2-3 Vaccination to prevent epidemics	- Record book						
1-2-4 Training and on-the-job training of disease prevention measures	- Training equipment						
1-2-5 Provision of artificial insemination service	- Record book						
1-2-6 Guidance on environmentally-sound livestock management	- Manual						
1-2-7 Management of farm running cost	- Balance sheet						
1-3 Support by local government							
1-3-1 Introduction of activities to private firms, and enticement for investment	- DARD WEB site etc						
2.Association management							
2-1 Activities of livestock farming households							
2-1-1 Formulation of management plan	- Minutes						
2-1-2 Management of farm facilities	- Management record						
2-1-3 Financial management	- Balance sheet						
2-1-4 Procurement of feed and fertilizer distribution	- Management record						
2-2 Product development in cooperation with the local government							
2-2-1 Use of by-products from farm’s appurtenant facilities and market research	- Sales record, Search record						
Inputs							
1. Experts 1-1 Livestock management expert 1-2 Food processing expert 1-3 Livestock propagation expert 1-4 Animal epidemic disease expert 1-5 Community development expert 1-6 Environmental development expert				2. Equipment and material 2-1 Farm management equipment 2-2 Bio-Gas equipment 2-3 Food processing machine 3. Cost of workshop and training 4. Manual and teaching materials 5. PC, Internet equipment			
Points of Concern for Implementation							
1. In areas where monetary economy is underdeveloped, people’s awareness should be raised that livestock farming can improve their livelihood.							
2. Livestock farmers should understand that livestock farming is always accompanied by epidemics and that their livestock may become the source of infection.							
3. The dairy farm should be managed with a consideration of traditions and habits of different ethnic groups.							
4. Intensive farming of livestock may suffer more from epidemics. Disease prevention should always be carried out.							
5. The dairy farm is to be managed collectively by member farmers. The local administration audits the association, and takes part in management when necessary in order to secure sustainability.							
6. The dairy farm should not be a facility that its members only use. It should also be a place to introduce appropriate technology by the local government.							

Sector	Food Security Improvement in the Northwest Region		
Program	Inland Fishery Supporting Program		
Action Plan	Pond Aquaculture Pilot Project in Dien Bien Province		
Implementation Period	3 years		
Target / Area	Muong Phang commune, 47 hamlets, 1,564 households, 4,200 peoples, Dien Bien district Fisheries officers, Dien Bien district and province		
Implementation Agency	Fisheries Department, DARD	Agencies Concerned	Farmer's union, Women's union, Young men's union and Veteran's union
<p>Objectives</p> <p>In Dien Bien province, there would be a great need for the development of inland fisheries to ensure the improvement of tropic sources and income generation. Therefore, it might be relevant to promote pond aquaculture project in conjunction with agriculture and livestock support program. In order to enhance per capita fish consumption level to 4 kg from 2 kg at present level, it is needed to increase the rate of farmers who possess pond for aquaculture to 50 % from 20 % at present level and it should be required to construct more hatchery stations to provide farmers with fingerlings.</p> <p>This action plan is planned as the aquaculture development program 1 (pond aquaculture, years 2010-2015) and involves central executive committee of communes and extant agencies (farmer's union, women's union, young men's union, and veteran's union) to initiate pilot project. Simultaneously strengthening of the administration capacity and promotion of the local technicians are considered. This program is particularly related to the supporting program of the agriculture and livestock and aquaculture project will be developed and promoted in the Dien Bien province in the unique methodologies. Long term plan until 2015 should be as follows:</p> <ol style="list-style-type: none"> 1. Project scheme will be fully discussed in the Muong Phang communes. 2. Extant aquaculture ponds will be studied for their numbers, sizes and total areas. 3. Availability of water mass will be examined and possibility of future enlargement of the water mass will be estimated. 4. Necessary amount of fingerlings will be calculated. 5. Structure and scale of the hatchery stations will be determined and professional staffs will be firmly assigned. 6. Hatchery station is constructed and fish fingerlings will be provided to farmers. 7. Those farmers who want to implement pond aquaculture are supported in terms of pond construction and/or enlargement of pond and guided by local extension staffs technically. 8. Pilot project to examine the future development of pond aquaculture is initiated in the commune. 9. Market route of the product will be studied and training program for commune peoples and local fishery staffs will be established. 10. Management of surrounding environment condition of aquaculture pond and establishment of sustainable aquaculture model of world standard. <p>This action plan should be well consistent with the fisheries development strategic plan as approved by the prime minister and related to the SUDA (Sustainable Development of Aquaculture) project under the DANIDA.</p>			
Project Area: Dien Bien Province		Organizations	
<p>Prioritized commune under this project</p> 		 <p>DARD: Department of Agriculture & Rural Development DOF: Department of Fisheries DPI: Department of Planning & Investment DIT: Department of Industry and Trade</p>	

Project Summary							
Overall Goal		Outputs					
1.Increase and diversification of farmer's income		1. Number and areas of aquaculture ponds are well investigated					
2.Sustainable development of aquaculture without hazard to environment		2. Hatchery stations are constructed to provide fingerlings internally					
Project Purpose		3. Those farmers who want to implement pond aquaculture are supported in terms of pond construction and/or enlargement of pond and guided by local extension staffs technically.					
1.Development of aquaculture in the target area of the program		4. Technique and knowledge for aquaculture of farmers and fisheries officers are well progressed under the training					
2. Per capita fish consumption are increased							
Activities	Reports and Materials	Annual					
		1	2	3	4	5	6
1. Investigation of present condition of aquaculture ponds and systematic provision of water							
1-1 Investigation of aquaculture ponds							
1-1-1 Scale, number and total area of extant aquaculture ponds	- Database						
1-1-2 Estimation of capacity of water use	- Database						
1-2 Systematic provision of water to aquaculture ponds							
1-2-1 Calculation of amount of water to supply to the ponds	- Statistics						
1-2-2 Systematic formation of water supply from catchment areas	- Water supply map						
2. Establishment of hatchery station							
2-1 Production of fish seeds (fingerlings)							
2-1-1 Selection of aquaculture target species	- Selection manual						
2-1-2 Determination of the scale of station	- Technology manual						
2-1-3 Assignment of professional staffs of seeds production	- Technology manual						
2-1-4 Construction of station							
3. Expansion of pond aquaculture project							
3-1 Recruitment of farmers who plan to implement pond aquaculture							
3-1-1 Selection of target farmers for subsidy	- Selection manual						
3-1-2 Training and guidance of aquaculture project	- Texts for training						
3-1-3 Initiation of aquaculture project	- Statistics of production						
3-2 Investigation of marketing rout							
3-2-1 Survey of the present marketing rout, development of new rout including export	- Marketing map						
3-2-2 Training tour to advanced area	- Report of tour						
3-3 Countermeasure to fish disease							
3-3-1 Guidance by professional fish disease counselor	- Fish disease manual						
3-3-2 Acquisition and stock of the medicines for fish disease	- List of medicines						
4. Consideration of microfinance							
4-1 Examination of aquaculture management							
4-1-1 Estimation of initial and running costs	- Aquaculture manual						
4-1-2 Income from products	- Balance sheet						
4-2 Possibility of microfinance							
4-2-1 Research of the former experience of success and failure	- Microfinance manual						
4-2-2 Construction of microfinance system	- Balance sheet						
5. Capacity development of fisheries officers, DARD							
5-1 Training of fisheries officer to guide the aquaculture technology							
5-1-1 Training for aquaculture technique	- Guidance manual						
5-1-2 Training for fish disease	- Guidance manual						
5-1-3 Training for storage method of fishes	- Guidance manual						
5-1-4 Training for fish processing and marketing	- Guidance manual						
6. Development of sustainable aquaculture							
6-1 Management of environment							
6-1-1 Management of surrounding environment condition	- Guidance manual						
6-2 Consideration of sustainable aquaculture							
6-2-1 Progress of sustainable aquaculture	- Guidance manual						
6-2-2 Establishment of sustainable aquaculture model	- Industry model						
6-3-1 Broadcasting the sustainable aquaculture	- Homepage						
Inputs							
1. Experts on		2. Equipment for pilot activities					
1-1 Project manager		2-1 Hatchery station, Fish disease research center					
1-2 Seeds production of freshwater fishes		2-2 Material for pond construction					
1-3 Aquaculture technique and fish disease		2-3 Material for seeds production					
1-4 Marketing		2-4 Medicine for fish disease					
1-5 Environment conservation		2-5 Manual and texts					
Recommendations							
1. This program should be consistent with the national fisheries development master plan and those of four provinces.							
2. After the detailed examination of the former failure experiences, the chief staffs should be well supported technically and physically to let the project be successful							
3. Under the recent tendency of aquaculture, the sustainable aquaculture has been started which is composed of four main keys, culture of low tropic level fishes, use of vegetable foods for fishes, integrated aquaculture united to agriculture and livestock, and small scale and extensive aquaculture. This program also aims to follow this world tendency. Attention should be paid for conservation of biodiversity. Hybrid species and rainbow trout are not adopted in this project.							
4. The program should be well combined with related agencies and unions and traditions and cultures of communes should be highly considered as grass root scale.							
5. Imbalance of risk and profit between minority groups should be avoided under the social consideration procedure.							

Sector	Local Revitalization and Diversification of Income Sources		
Program	Non-Timber Forest Products (NTFPs) Promotion Program		
Action Plan	Introduction of Medicinal Plants in Dien Bien Province		
Implementation Period	6 years		
Target / Area	Điện Biên Đông district, Mường Chà district, Mường Nhé district. DARD and district officials engaged in NTFP and Cooperatives engaged in production/processing of NTFP		
Implementation Agency	DARD (Sub-DOF)	Agencies Concerned	NTFP Research Center, Cooperative Alliance (CA), etc.

Objectives

Main NTFPs produced in Dien Bien province are bamboos, rattans and lac. Bamboos are to be used not only as foodstuff but as raw materials for construction, handicrafts, paper making. Lacs are to be exported to other provinces and China as for raw materials for lacquer and cosmetics. Production volume of other NTFPs, which are cultivated in the farmlands and collected from the protection forests, are not so high enough to export to outside of the region but enough to consume inside the region/province. In some areas in Dien Bien province, cultivation of medicinal plants will be planned to be implemented by the contract with the medicine company in Vietnam. According to the results of experimental planting of multi-purpose trees and medicinal plants/herbs by RENFODA project, which are being conducted by JICA in Hoa Binh province (scheduled to be end by September, 2008), some new NTFPs would be introduced into the Northwestern region.

According to the current production of NTFPs in Dien Bien province and results of the aforementioned RENFODA project, assistances for those activities, such as 1) Grasping resource volume of NTFPs, 2) Improving production techniques, 3) Improving processing techniques, 4) Opening up new markets, and 5) Establishing cooperatives, will be conducted for the following NTFPs in the districts of Điện Biên Đông, Mường Chà and Mường Nhé.

- Medicinal plants (Khúc khắc, Guột lá, Cu li, Huyết giác, Thiên niên kiện): Mường Chà and Mường Nhé districts
- Lac (Cánh kiến): Mường Chà
- Bamboo (Tre nứa, luồng): Điện Biên Đông, Mường Chà and Mường Nhé districts
- Rattan (Song, mây): Điện Biên Đông, Mường Chà and Mường Nhé districts

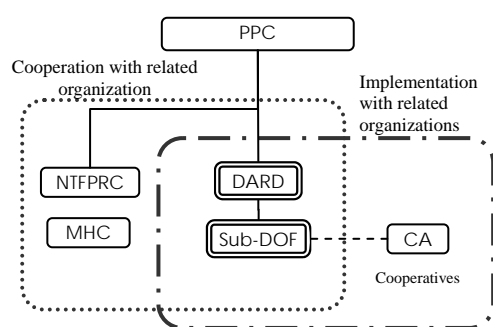
Especially, high-value products should be considered to be introduced by means of production of medicinal plants and herbs/spices.

In term of 6) Introducing new kinds of NTFPs, introduction of multi-purpose tree species, such as Sấu and Trám (Trám chim, Trám trắng, Trám đen) and medicinal plants, such as Talauma Giỏi and Ba Kích will be considered.

Project Area: Dien Bien Province



Organizations



- PPC: Provincial People's Committee
DARD: Department of Agriculture & Rural Development
Sub-DOF: Sub-Department of Forestry of DARD
NTFPRC: NTFP Research Center in FSIV
MHC: Ministry of Healthcare
CA: Cooperative Alliance

Project Summary						
Overall Goal Income sources of farmers will be diversified and increased. Products which utilize the domestic resources in the Northwester region will be increased.			Outputs 1. Standing stock and production volume of NTFP products will be grasped. 2. Stable production of NTFP products will be conducted. 3. Processing of NTFP will be conducted and market of NTFPs will be diversified. 4. NTFP Cooperative Alliances will be organized. 5. Knowledge / techniques of staff will be improved by the trainings on NTFP. 6. New kinds of NTFPs will be introduced.			
Project Purpose NTFP-related industries will be developed in the target areas. New kinds of NTFPs will be developed and produced in the target areas.						
Activities		Reports and Materials		Annual		
				1	2	3
[1. Grasp of Resource Volume of NTFPs] 1-1 Grasp of standing stock of NTFPs 1-1-1 Assistance for grasping of standing stock and used volume of NTFPs 1-2 Monitoring on grasping of NTFP resource volume 1-2-1 Monitoring on grasping of NTFP resource volume [2. Promotion of NTFP production] 2-1 Production of seedlings 2-1-1 Securement / development of NTFP species suitable for Dien Bien province 2-1-2 Construction / expansion of nurseries for seedlings 2-1-3 Production of seedlings 2-1-4 Securement of production areas/plantation areas 2-1-5 Planting of seedlings 2-2 Production/storage of raw materials of NTFPs 2-2-1 Management/tending of existing production areas 2-2-2 Management and tending of planting areas 2-2-3 Trainings on production/storage techniques at existing production areas 2-2-4 Trainings on production/storage techniques at new production areas 2-2-5 Site visits to the advanced areas 2-3 Monitoring on promotion of NTFP production 2-3-1 Monitoring on promotion of NTFP production [3. Processing of NTFPs and Marketing] 3-1 Improvement of processing techniques of NTFPs 3-1-1 Grasping of existing processing techniques of NTFPs 3-1-2 Renovating of existing processing techniques of NTFPs 3-1-3 Development of new processing techniques of NTFPs 3-1-4 Renovation/Construction of processing facilities of NTFPs 3-1-5 Site visits to the advanced areas 3-2 Diversifying of market of NTFPs 3-2-1 Grasping of current market of NTFPs 3-2-2 Opening up of new market of NTFPs 3-2-3 Networking with domestic / overseas companies 3-2-4 Site visit to the advanced areas 3-3 Monitoring on improvement of processing techniques and opening-up of new market 3-3-1 Monitoring on improvement of processing and opening-up of new market [4. Establishing cooperatives for production, processing and marketing of NTFPs] 4-1 Establishing cooperatives for production, processing and marketing of NTFPs 4-1-1 Extension / enlightening of necessity of cooperatives 4-1-2 establishing the new organization set-up 4-2 Securing coherences with regulations on NTFP 4-2-1 Grasping the current legal systems on NTFP 4-2-2 Recommendations on new legal systems on NTFP 4-3 Monitoring on establishing cooperatives on NTFP 4-3-1 Monitoring on establishing cooperatives on NTFP [5. Capacity development of official staffs in Dien Bien province] 5-1 Trainers' trainings for technical extension 5-1-1 Technical training on grasping standing stock / used volume 5-1-2 technical training on seedling production 5-1-3 Technical training on production management of raw materials 5-1-4 Technical training on processing 5-1-5 Technical training on marketing [6. Introduction of new kinds of NTFPs] 6-1 Examination of new NTFPs, including market researches 6-2 Production of new kinds of NTFPs, including seedling production, plantation, tending 6-3 Processing of New kinds of NTFPs 6-4 Opening-up of new market on new kinds of NTFPs						
Inputs 1. Experts on 1-1 I Social development 1-2 Product processing/Food processing 1-3 Forestry/NTFPs 1-4 Marketing 1-5 Organization set-up 1-6 Training planning 1-7 Specific NTFPs (short-term) 2. Production materials 2-1 Materials for plantation 2-2 Materials for seedling production 2-3 Storage/processing of NTFPs 3. Facilities (including temporary facilities) 3-1 Nurseries 3-2 NTFP processing facilities 4. Other materials 4-1 Research for existing volume of NTFPs 5. Manuals/guidelines 6. Personal computers						
Recommendations 1. Cooperation with related authorities/organizations should be considered for integrated assistance. 2. Promotion of local NTFP species and introduction of new NTFP species should be conducted to diversify kinds of NTFPs. Participatory methods should be promoted to conduct projects, as consensus building and independence of residents are necessary for sustainable resource management. 3. Producers-oriented production activities should be promoted by means of establishment of corporative, strengthening of existing organizations and human resources, and strengthening of relationships with clients. 4. Adequate assistances, such as dispatching individual experts for each NTFP species, on the basis of experts' judgment, as different methods be applied to each NTFP species on cultivation, tending and processing. 5. Coherence with National Plan on Non-Timber Forest Product (NTFP) Development and Conservation (2005-2020) and results of RENFODA project should be considered.						

Sector	Local Revitalization and Diversification of Income Sources		
Program	Handicraft and Cottage Industry Promotion Program		
Action Plan	Community-based Handicrafts and Food Industry in Dien Bien Province		
Implementation Period	6 years (Phase 1: Pilot Project Phase 2: Extension over the Whole Area)		
Target / Area	Dien Bien District in Dien Bien Province (Cooperatives that produce handicrafts and process food)		
Implementation Agency	DARD, DIT (with coordination with PPC)	Agencies Concerned	Cooperative Alliance, Agricultural Extension Center, etc.

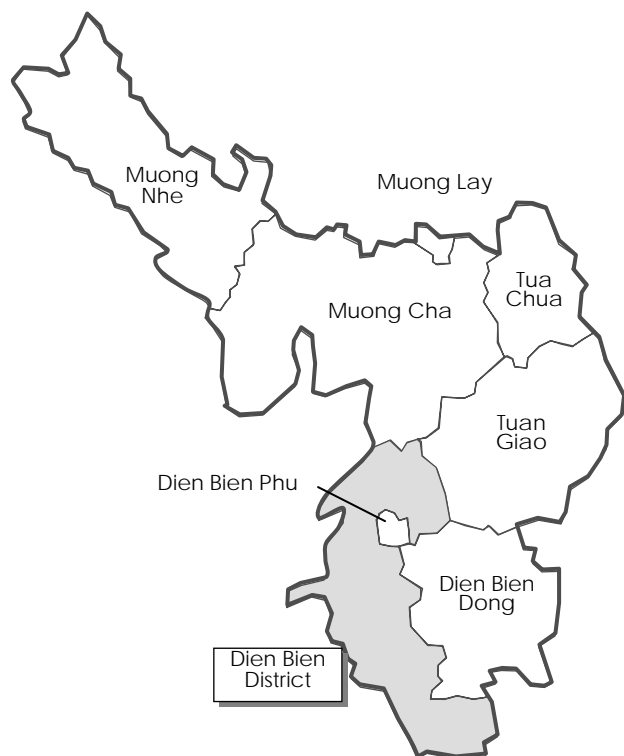
Objectives

This action plan consists of Phase I and Phase II, and carries out a pilot activity in which the existing businesses and organizations such as cooperatives and mass organizations serve as entry points. The focus of this action plan is capacity development of local government officers and technical extension officers.

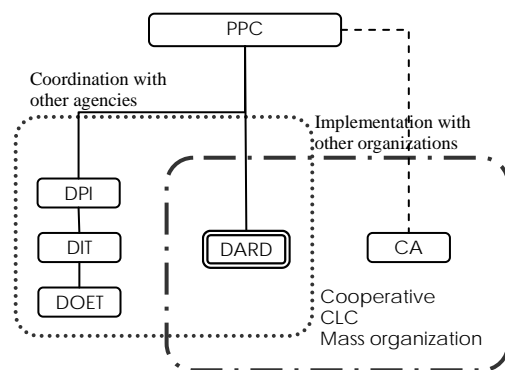
In Dien Bien Province, a) development of products for tourists and b) assistance and strengthening of the retail and service industries by exploiting its tourism potential are to be carried out. Assistance to develop human resources and promote marketing is to be given in cooperation with tourism development programs. In Phase I, guidance on development and production of handicraft products and processed food for tourists is to be given in Dien Bien District including U Ba Village (hot spring) near the Lao-Vietnam border. In Phase II, assistance to expand the market channels is to be provided while improving the products.

Project Area: Dien Bien Province

Priority districts of this action plan (1 districts)



Organizations



PPC: Provincial People's Committee
DARD: Department of Agriculture & Rural Development
DPI: Department of Planning & Investment
DIT: Department of Industry & Trade
DOET: Department of Education & Training
CA: Cooperative Alliance

Project Summary											
Overall Goal Cash income sources of farming households are diversified and cash income is increased Specialty products of the Northwest Region are increased Project Purpose Local industries in the program areas are developed Specialty products of the program areas are developed and produced				Outputs 1. TOT is conducted to develop capacity of local government officers on production assistance and marketing promotion and to reinforce local government services 2. Production of handicrafts and processed food is diversified 3. Production activities of cooperatives is activated 4. Market channels are expanded							
Activities				Reports and Materials		Annual					
						1	2	3	4	5	6
【Capacity development of provincial staff in Dien Bien】 1. Training of instructors for technical extension 1-1 Capacity development on planning (workshop for local people) 1-2 Assistance to marketing (direct from the producers) 1-3 Establishment of local network for sales promotion 【Assistance to cooperatives that produce handicraft and processed food】 2. Improvement of products 2-1 Technical training on traditional textile weaving 2-2 Quality improvement in food processing 2-3 Introduction of packaging machines and improvement of package design 2-4 Management training (procurement of materials, fund management) 3. Enhanced activities of cooperatives 3-1-1 Making of logo and tags 3-1-2 Establishment of system of division of production and packaging 3-1-3 Product fair/show and gathering for food-tasting for product improvement 3-1-4 Study tour to the advanced region 4. Promotion at marketing centers for market expansion 4-1 Selection of marketing centers (hotels, restaurants, major tourism spots) 4-2 Training to promote marketing/sales (guidance on customer service, accounting, foreign languages, PC operation) 4-3 Improvement of marketing environment (internet, observation tours, etc.) 4-4 Sales promotion to tourists 5. Technical extension/expansion to other districts 5-1 Selection of target area and consensus building with beneficiaries on participatory activity 5-2 Technical transfer and practical training of agricultural extension officers/agents 5-3 Seminar for Cooperatives members 5-4 Study tour to the advanced region				- Instruction manual - Data fail on markets - List of customers - Extension of traditional technique - Training of farmers - Improvement of packaging technique - Establishment of business mind - Start of establishment of a brand - Development of specialty products through collaboration - Product fair/show, gathering for food tasting - Observation tour, training - Database - Manual, teaching material - HP, extension of PC and internet - Gatering for sales, campaign -							
Inputs											
1. Experts on 1-1 Social development 1-2 Agricultural and food processing 1-3 Handicrafts, etc. 1-4 Vegetable cultivation 1-5 Forestry and NTFP 1-6 Agricultural products, food processing, handicrafts, etc.				2. Equipment for production 2-1 Equipment and material for textile weaving 3. Packaging machine (Vacuum packing machine, Machine to print label and manufactured date) 4. Manual and teaching material 5. PC, Internet equipment 6. Cost for training and observation							
Recommendations											
1. Project implementation agencies should coordinate with the relevant departments and organizations so that comprehensive assistance will be provided 2. Through activities on organizational strengthening and human resource development, project implementation agencies should encourage cooperatives to carry out production activities with business mind 3. As each product and activity requires a different method of assistance, appropriate assistance is to be given based on experts' judgment. 4. Project implementation agencies should coordinate with tourism industry to create opportunities for the local people to start business											

Sector	Local Revitalization and Diversification of Income Sources		
Program	Rural Tourism Program		
Action Plan	Tourism Village Promotion in Dien Bien Province		
Implementation Period	3 years		
Target / Area	Staff of Department of Culture, Sports and Tourism (DCST), Residents of Nuong Luong Commune and Muong Phang Commune in Dien Bien District, Women's and other groups for traditional textile weaving		
Implementation Agency	Department of Culture, Sports and Tourism (DCST),	Agencies Concerned	DPI, DIT, DARD, Cooperative Alliance, etc.

Objectives

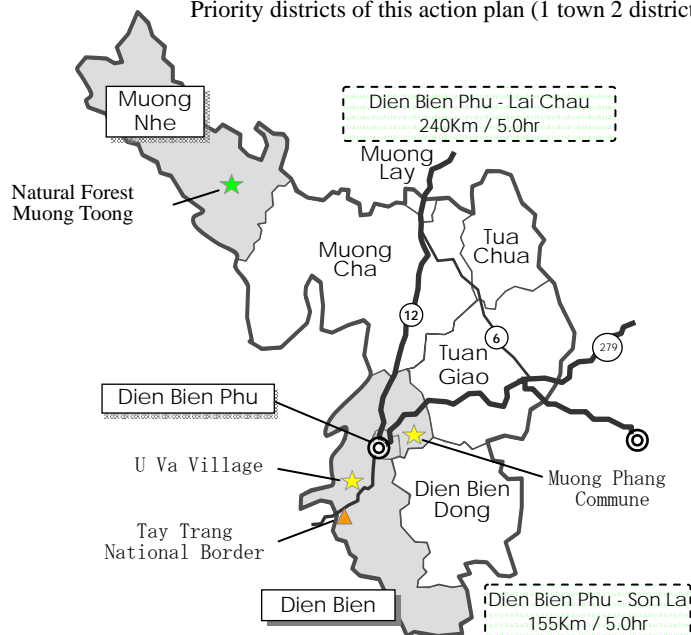
Under the restructuring of the Vietnamese government, the tourism sector of the Ministry of Trade and Tourism was transferred to the Ministry of Culture and Sports in August 2007. As a result, Department of Culture, Sports and Tourism (DCST) under the PPC became the responsible organization for tourism development at the provincial level. DCST is not fully developed in its administrative and management capacity on tourism. This action plan carries out a pilot activity on tourism development in each of the 4 provinces of the Northwest Region while focusing on organizational strengthening of DCST. This action plan is to pay special attention to smooth transfer of know-how owned by Department of Trade and Industry (DTI), which has experience with the study on national tourism master plan (2004), to DCST. As for PR activities on tourism, promotions are to be carried out not by each province, but by the Northwest Region to publicize the whole area.

Dien Bien Province has a good transport access. It has an airport in Dien Bien Phu, the provincial capital, and can be reached from Hanoi by air in only one hour. Over 200,000 tourists visit Dien Bien Province every year whose main destinations are the historical battle field in Dien Bien Phu, natural forests in Muong Nhe, the Pa Khong Lake, hot springs, etc. Ninety percent (90%) of the tourists are from other provinces in Vietnam so that tourism in Dien Bien Province has not been developed yet to earn foreign currencies. Lao Cai Province, which adjoins Lai Chau Province, a neighboring province of Dien Bien, has Sa Pa, the most famous tourist destination in the Northern Vietnam. Every year a quarter of a million foreign tourists and 70,000 domestic tourists come to Sa Pa for its highland resorts where ethnic minorities live. Dien Bien, which has similar geographical conditions as Sa Pa, has been capturing attention so that the tourism is to lead to activation of the area.

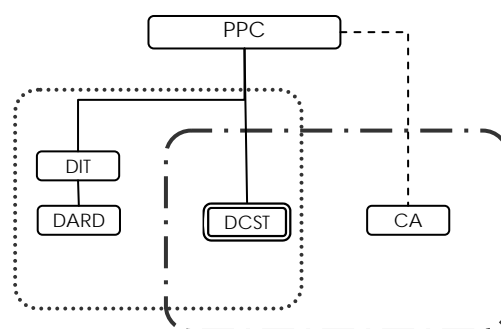
For development of tourism in Dien Bien Province, domestic and foreign tourists should be handled differently. Tours such as educational tours and packaged tours, which targets people of all ages, are needed for domestic tourists. Green tourism such as trekking tours in the mountainous national border areas is popular among foreign tourists. New breed of tourism should be proposed to these foreign tourists including sport fishing, basking in the woods, agricultural experience in orchards and livestock farms, etc. Through this action plan, a) tourism villages where people can experience textile weaving and pottery making, and b) posh handicraft products with traditional patterns/motifs of ethnic minority groups are to be developed in cooperation with the Handicraft and Cottage Industry Promotion Program. At the same time, opportunities for the local residents to break into tourism industry are to be created including opening of restaurants for local cuisine and souvenir shops. Activities that deepen tourists' understanding of ethnic minorities in the area and that contribute to preservation of their traditional cultures are to be included. Construction of hotels and restaurants to meet the demand of growing number of tourists is needed in the future while improvement of business conditions to promote/bring in investment from outside the province is also needed.

Project Area: Dien Bien Province

Priority districts of this action plan (1 town 2 districts)



Organizations



DCST: Department of Culture, Sports and Tourism
 DIT: Department of Industry & Trade
 DARD: Department of Agriculture & Rural Development
 CA: Cooperative Alliance

Project Summary									
Overall Goal		Outputs							
While the tourism in the Northwest Region is activated, income sources of farming households are diversified with increased income.		1. Capacity of DCST on tourism development is improved							
		2. Rural tourism and green tourism are carried out (pilot activities)							
Project Purpose		3. Marketing targeting tourists is carried out							
Tourism is activated in the Program target areas.		4. Tourism in the Northwest Region is promoted							
The number of tourists in the Program target areas is increased.		5. PPP schemes to develop tourism infrastructure are examined							
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
1. Capacity development of DCST staff									
1-1 Setting up guidelines on rural tourism development		- Guidelines for provinces							
1-2 Collection of data on tourism development in the province		- Report of basic study							
1-3 Capacity development on rural tourism through participation of local residents		- Training record							
1-4 Strengthening of cooperation with other agencies (DCI, DOT, DARD)		- Minute of consultation meeting							
2. Human resource development on rural tourism and green tourism									
2-1 Explanation meeting on rural tourism, and awareness study through workshop		- Workshop record							
2-2 Selection of target area, and consensus building among the local residents concerning implementation									
2-3 Language lessons (English, Vietnamese)		- Language lesson							
2-4 Guidance on management of guest houses, restaurants, etc.		- Manual, teaching material							
2-5 Establishment of organization to start business on ethnic cuisine, performing arts, etc., and training		- Manual, teaching material							
2-6 Training of guides for green tourism		- Lecture/Training, Manual							
3. Marketing of rural tourism (feedback to other programs)									
3-1 Creation of questionnaires for tourists		- Questionnaire							
3-2 Study meeting of producers of handicraft and processed food		- Record of study meeting							
3-3 Establishment of opinion/suggestion boxes (tourism village, hotel, restaurant, airport)		- Opinion/suggestion box							
3-4 Holding of spot sales and gathering for food tasting		- Campaign, posters							
4. Tourism promotion									
4-1 Expansion of airport facility and establishment of information center		- Information center							
4-2 Creation of information ads, pamphlets and tourism maps		- Pamphlets							
4-3 Establishment of Ethnic culture museum		- Ethnic(ethnology) museum							
4-4 Product fair/show and gathering for food tasting to promote sales		- Campaign							
4-5 Holding of events under the theme of ethnic cultures		- Events							
4-6 Establishment of information/explanation boards		- Information boards for tourism							
5. Improvement of infrastructure to promote tourism									
5-1 Examination to run buses that follow a circular route among tourist destinations		- Guidelines							
5-2 Explanation and study meetings on PPP schemes targeting businesses/enterprises		- Study meeting							
5-3 Training/Courses on PPP scheme		Visit for observation							
Inputs									
1. Experts on				2. Equipment and material for pilot activities					
1-1 Tourism				2-1 Equipment for infrastructure improvement					
1-2 Social development				3. Cost for workshop and training					
1-3 Socio-economy.				4. Teaching material, guidelines on crop cultivation					
1-4 Handicrafts and food processing									
1-5 Marketing and distribution									
Recommendations									
11. Monitoring of local residents' awareness and willingness, and sensitization of local residents are needed for development of rural tourism. Consensus building and active participation of the residents are also needed. For these activities, promotion of participatory methods is to be done.									
2. Development of agro-rural tourism based on natural environment and unique cultures of ethnic minorities is to be done. Linkages with the primary industry are to be strengthened.									
3. Development of specialty and local products is to be the key to success of rural tourism development: dairy food (soft ice-cream, yoghurt), processed meat and fish (ham, sausage, smoked food), alcoholic beverage (beer, wine)									
4. Coordination with the related departments and agencies as well other provinces is needed to carry out comprehensive PR of the Northwest Region									
5. PPP schemes should have a system in which new activities on accommodation facilities, tourist farms, tourist centers, tourism information boards, etc. can be proposed.									

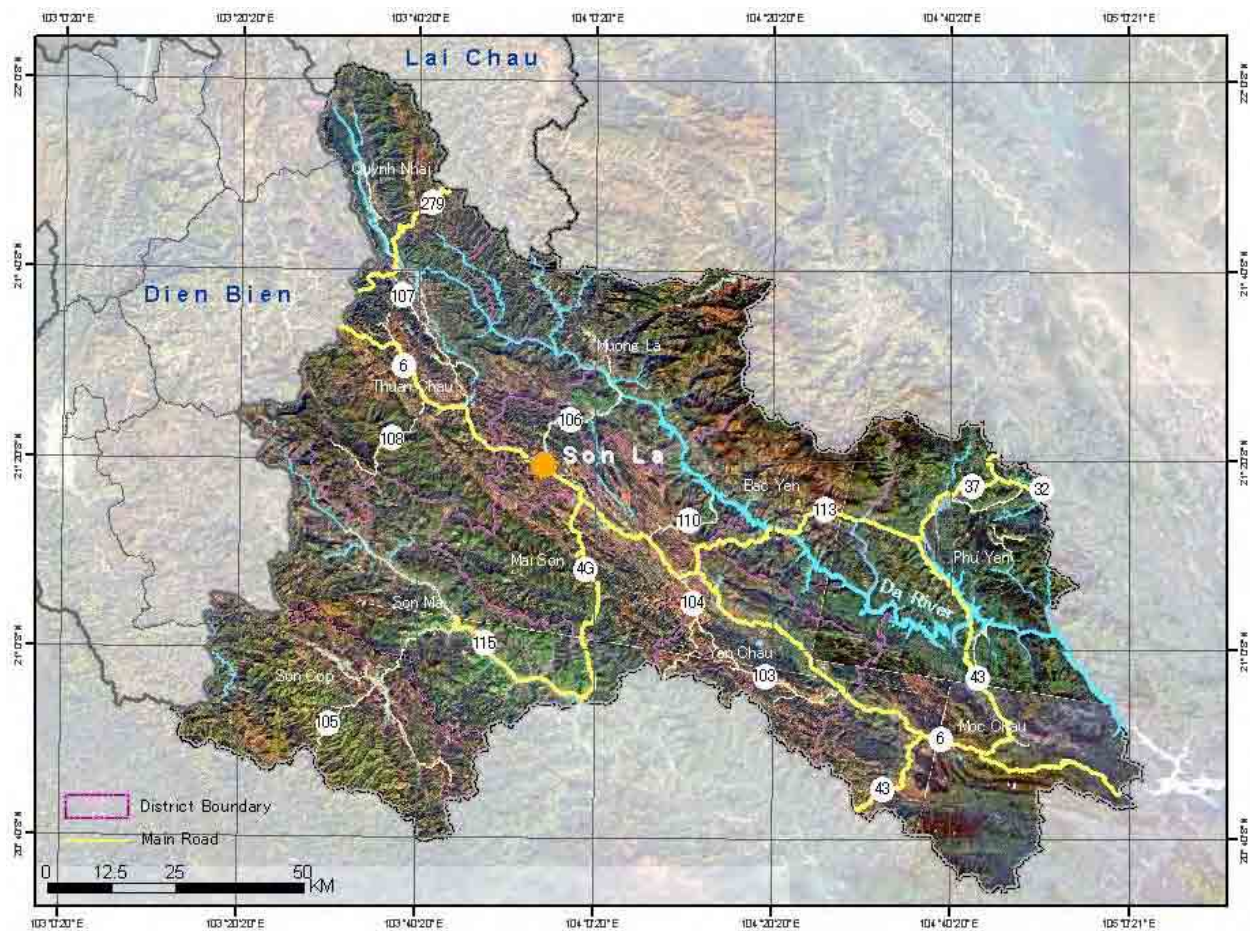
11.5 Action Plan for Son La Province

Son La Province

Provincial Master Plan Programs
Action Plans(2010-2015)



Administration Boundaries and Major Road Networks



Satellite Image of Son La Province



3D Landscape of Son La Province

Action Plans for Son La Province

1. Current conditions of Son La Province

Son La Province is the largest province in the Northwestern Region, covering the area of 14,174 km². Its population is 1.024 million. Both the area and the population are 38% of those of the Region. Its population density is 72 persons / km². (Population density of the Region is 71 persons/ km²) Ethnic groups found in the province include Thai (55% of the provincial population), Kinh (17%), Hmong (13%), and Muong (8%). Eighty-seven percent (87%) of the workforce is engaged in agriculture. GDP per capita in 2005 was US\$266.

The road from Hanoi to Son La, that goes through Hoa Binh, is 315 km long (National Road No. 6). Moc Chau District, which is located at the southernmost edge of the province, is 200 km away from Hanoi (5 hours by car).

Compared to Lai Chau Province and Dien Bien Province, the average elevation of Son La Province is low. Seventy percent (70%) of the province is located between 100 and 1,000m above sea level. The Province has a rough landscape like Lai Chau and Dien Bien Provinces. Fifty-seven percent (57%) of the land area is slope land of over 30 degrees. The province has 2 major rivers. Sixty-four percent (64%) of the provincial areas is in the Da River basin while 35% is in the Ma River basin.

Provincial GDP in 2005 was 4.177 trillion VND, which is equal to 39% of the total GDP of the Region. The primary industry accounts for 43% of the GDP. Reliance on agriculture is heavy. Cultivated area occupies 18% (254,000 ha) of the whole province. Among the cultivated area are upland field (198,000 ha), paddy field (14,000 ha) and orchard, etc. (42,000 ha), accounting for 78%, 6% and 16%, respectively. While the ratio of paddy field is small, that of orchards is big.

Production amount of paddy and upland rice with husks was 128,000 ton in 2005. This is equal to 85 kg of rice without husks per person, which is only 51% of the national average of 168 kg. Such low rice production amount per person is due to imbalanced distribution of land and water resources; that extension/expansion of paddy field is quite limited. Maize is cultivated as a replacement crop of rice. The amount of maize production in the province is 288,000 tons, which is 57% of the total production of the Region. Many industrial crops such as tea, coffee, cotton, soy beans, etc. are cultivated. Moc Chau District is the most famous agricultural region in the province where not only tea, but also dairy products and premium vegetables bound for markets in Hanoi are produced.

2. Action Plans Proposed

Increased production of food and improved diet

Although the rice shortage in Son La Province is compensated by marketed rice from the other provinces/regions, attainment of food security through stable production of rice is a basic issue for the agricultural policy of the province. Intensification of rice cultivation through production increase and improved rate of cultivation needs to be carried out. Because of the province's limited opportunities for irrigation development, the issue calls for multifaceted efforts.

As the rice shortage is partially compensated by maize, an action plan aims for improved production of maize. Road access within Son La Province is not good. In rainy season, many places cannot be accessed by cars. Because smooth distribution of crops require improved access, improvement and O&M of rural roads are essential. Development of agriculture under the theme of "local production for local

consumption” is also important. An action plan proposes increased food production in remote areas through the combination of small-scale irrigation development in field and paddy terraces and provision of quality seeds.

Support of safe vegetable production

Son La Province is one of the major tea and coffee production areas. Son La tea was successfully established as a brand. An action plan proposes a pilot project to promote quality improvement of tea and coffee. Efforts should be made in finding and adopting commercial crops that are likely contribute to activation of the area (area development). As a candidate for such commercial crops, production of safe vegetables is included in an action plan. In Moc Chau District, whose agricultural sectors are developed due to its easy access to Hanoi, protected/greenhouse horticulture is carried out by private firms. These firms are not only specializing in safe vegetable production. They send the vegetables directly to large supermarkets in Hanoi as well. An action plan proposes government-led guidance on agricultural technique, and production of organic fertilizer in order to learn from experiences of Da Lat, Lam Dong Province, support self-reliance efforts of the private firms, and offer local farmers chances to take part in safe vegetable production.

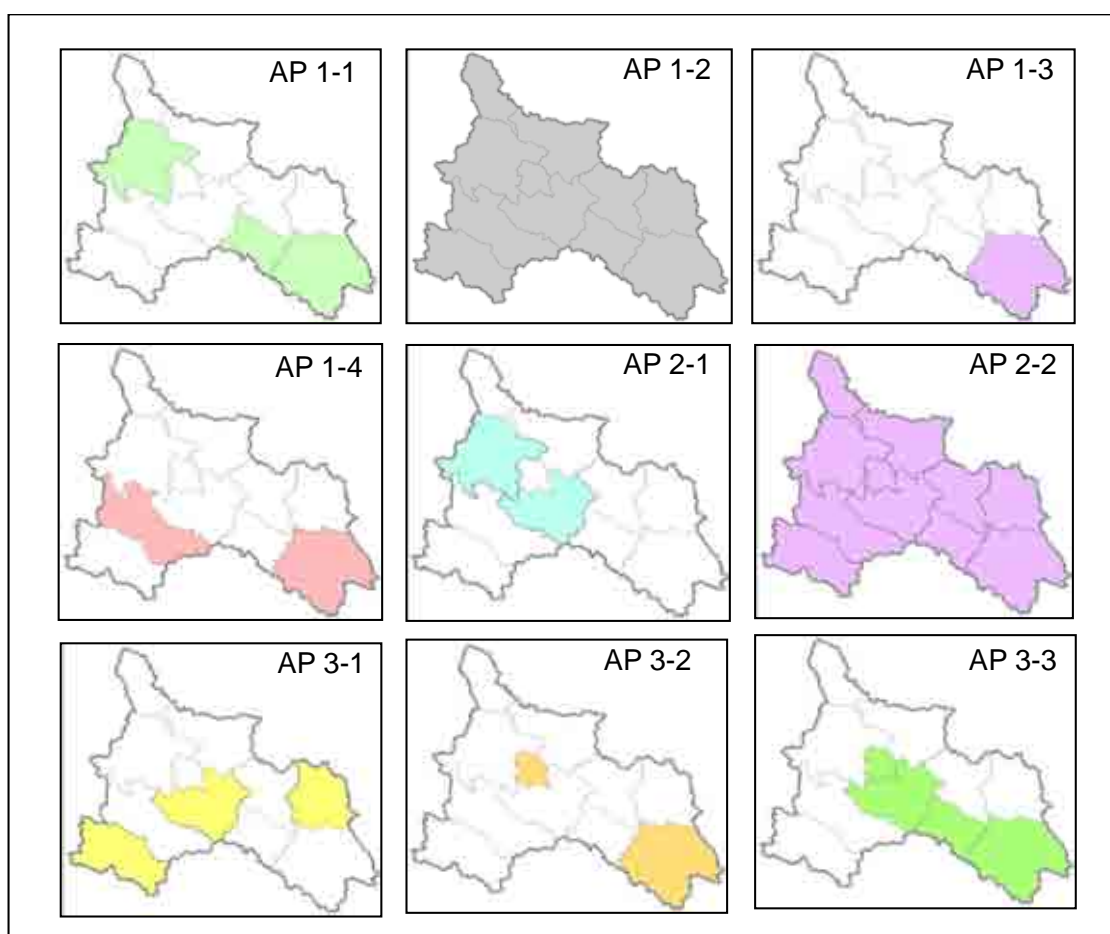
Conservation and utilization of forest resources

Forestation of rubber trees has been taking place in Son La Province on denuded land with altitude less than 600m above sea level and slope less than 30 degrees. As it will be explained later, action plans propose watershed conservation and bio-energy development. These action plans are aimed to develop into regional wide activities and adopt energy crops such as jatropha. Comprehensive management system of NTFP including medical herbs, spices, rattan, lac, and bamboos is to be development because production activities that do not rely on land resources are needed.

Promotion of specialty products of Son La Province and rural tourism

In Son La Province, various products are already on the markets as a result of the government-supported development of specialty products. Focusing on the handicraft and food processing, an action plan supports development of local industries, and development of products and marketing channels. In rural tourism, development of small-scale industry in areas centered around reservoirs of the Son La Dam which is to be completed in 2012 is to be the key.

Sector	Master Plan Programs		Action Plan		Page
Son La Province Master Plan					
1. Market-Oriented Agricultural Promotion	1.1	Industrial Crop Production Improvement Program	AP1.1	Quality and Yield Improvement of Tea	11-64
			AP1.1	Quality Improvement of Coffee	11-66
	1.2	Agribusiness Promotion Program	AP1.2	Production and Marketing of High Quality Dairy Products	11-68
	1.3	Safe Crop Production Program	AP1.3	Establishment of Clean Vegetable Center	11-70
	1.4	Border Trade Promotion Program	AP1.4	Infrastructure Development in Border Area	11-72
2. Food Security	2.1	Remote Area Food Crop Production Program	AP2.1	Maize Production Improvement in Remote Areas	11-74
	2.2	Animal Health and Production Improvement Program	AP2.2	Animal Health Control	11-110
	2.3	Inland Fishery Supporting Program			
3. Revitalization and Diversification of Income Sources	3.1	NTFP Promotion Program	AP3.1	Integrated NTFP Management	11-76
	3.2	Handicraft and Cottage Industry Promotion Program	AP3.2	Promotion of Specialty Products	11-78
	3.3	Rural Tourism Program	AP3.3	Tourism Village Promotion	11-80
Regional Master Plan					
4. Environmental Conservation and Biomass Energy Development	4.1	Da River Watershed Management Program	AP4.1	Afforestation with Rubber and Other Useful Trees and Agroforestry Promotion	11-112
	4.2	Natural Forest Conservation Program	AP4.2	Management of Special-Use Forests and Establishment of New Nature Reserves	11-114
	4.3	Biomass Energy Promotion Program	AP4.3	Introduction of Biomass Energy Production	11-116
5. Irrigation and Water Supply Development	5.1	Water User Organization Strengthening Program	AP5.1	Water User's Organization (WUO) Strengthening Pilot Project	11-118
	5.2	Mountain Stream Water Use Program	AP5.2	Mountain Stream Multipurpose Use Pilot Project	11-120
6. Rural Road Development	6.1	Rural Road Maintenance Program	AP6.1	Rural Road Operation and Maintenance Pilot Project	11-122
7. Rural Electrification	7.1	Renewable Energy Development Program	AP7.1	Renewable Energy Development Pilot Project	11-124
8. Capacity Building	8.1	Provincial Staff Training for 5 Year Plan Preparation	AP8.1	Formulation of 5-Year Agriculture and Rural Development Plan	11-126
	8.2	Rural Information Database Establishment Program	AP8.2	Northwestern Region GIS Establishment Project	11-128



Action Plan Coverage Maps

Sector	Market-Oriented Agricultural Promotion		
Program	Local Industrial Crop Production Improvement Program		
Action Plan	Quality and Yield Improvement of Tea in Son La Province		
Implementation Period	6 years Phase I: Implementation of Pilot Scheme, Phase II: Expansion of development schemes to the whole province)		
Target / Area	The whole area of Son La Province, Moc Chau District, Thuan Chua Districts and Yen Chua Districts. Tea producing farmers, related technical extension agents, tea processors, etc.		
Implementation Agency	DARD	Agencies Concerned	Northern Mountain Area Agro-Forestry Science & Technology Institute (Vietnam Tea Research Center) , Agricultural Extension Center, etc.

Objectives

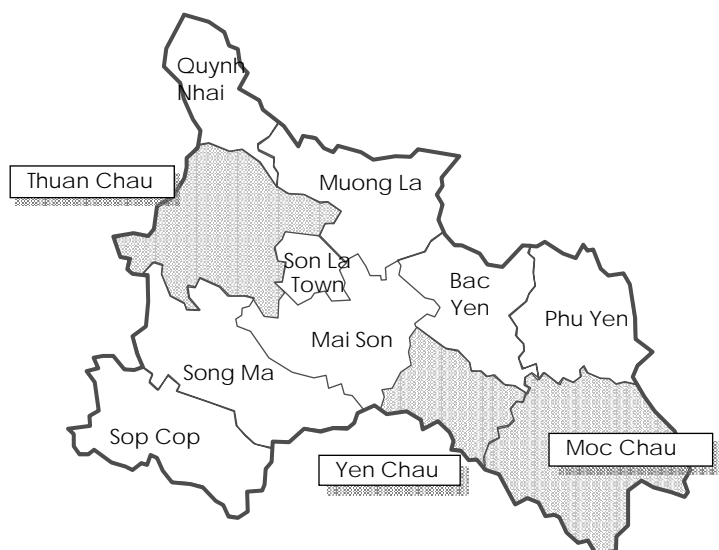
Son La Province is located at high altitudes and cool-cum-humid climate to which production of tea is best suited. Tea is a local specialty of Son La Province which is cultivated in 4,000 ha area, accounting for nearly 80% of the tea production in the Northwest Region. There is the tea factory in Moc Chau, which is one of the VINATEA group members, produces and sells high quality tea products. The Moc Chau tea penetrates into both domestic and international markets with a big brand name.

In order to improve the productivity of tea plantation, and then, stabilize the livelihood of tea farming households in a sustainable manner, improvement of cultivation methods is needed as a measure to increase the unit yield. Also, the current crown-shape of low stem-cum-flat plate type should be changed to that of tall stem-cum-dome type. Tea varieties that are suited to be produced into fermented tea (black tea, oolong tea, etc.) are currently cultivated in the province.

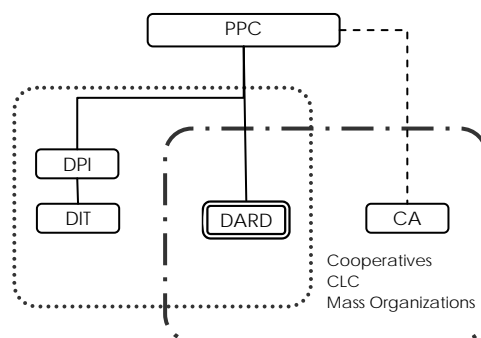
As the demand for tea leaves for drinking and medical use is growing in international market, tea can be considered as a promising commercial crop. In terms of the potential for promotion of tea industry in the Northwest Region, large-scale development can be expected because it is possible to cultivate tea on a mountain slope up to 20 or 22 degrees. Development of tea plantation supplements the vegetation improvement of areas whose soil was weakened due to series of swidden/shifting cultivation over a long period of time. For this reason, development of tea plantation is expected to contribute greatly to watershed conservation

Project Area: Son La Province

Priority districts of this action plan (3 districts)


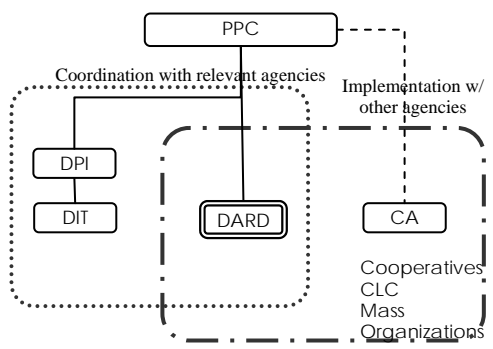


Organizations



PPC: Provincial People's Committee
 DIT: Department of Industry & Trade
 DPI: Department of Planning & Investment
 DARD: Department of Agriculture & Rural Development
 CA: Cooperative Alliance

Project Summary							
Overall Goal Productivity of tea industry and income of tea farming households are both increased.				Outputs 1. Establishment and demonstration of appropriate technique for tea cultivation (pilot activities) 2. Quality improvement of tea product throughout the province 3. Increase of tea production throughout the province			
Project Purpose Tea produced in Son La Province is established as a brand well known in the domestic market as a local specialty product of the province. Supply system of tea that would meet the demand even in the market is established.							
Activities		Reports and Materials		Annual			
				1	2	3	4
Productivity improvement scheme for coffee plantation 1. Baseline study and planning of pilot schemes (50 ha x 2 sites) 1-1 Baseline study on agricultural conditions (cultivation technique and household economy) among tea producing households 1-2 Study on tea purchases and domestic and international trade 1-3 Quality standard of tea products, setting up of quality and price, production technique and issues to overcome 1-4 Selection of pilot scheme areas, designing of scheme and consensus building with beneficiary farmers (participants) 2. Implementation of tea plantation pilot scheme 2-1 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation method/practices, etc. 2-2 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods/practices, technical training, etc.) 2-3 Introduction of appropriate farming tools (pruning shears, sprayer for pest control, etc.) 2-4 Measures to improve and strengthen the institutional supporting services for tea plantation (including farmers' organization, institutional financing, etc.) 2-5 Improvement of primary processing facilities 2-6 Establishment of production center (quality improvement, improved efficiency of procurement of raw materials and processing) 2-7 Government campaign to establish market channels and popularize the northwest brand tea (Son La Tea) 2-8 Monitoring and evaluation of the activities 3. Training and guidance of tea leaf production technique for agricultural extension staff, etc. 3-1 Technical transfer and practical training of provincial and district agricultural extension officers/agents 3-2 Practical training and guidance of extension workers and key tea farmers through management of the demonstration farm 3-3 Technical transfer to tea processing engineers 4. Technical extension/expansion of tea schemes to other districts 4-1 Selection of target area and consensus building with beneficiaries on participatory activity for tea scheme implementation 4-2 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation methods/practices, etc. 4-3 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods/practices, technical training, etc.) 4-4 Introduction of appropriate farming tools (pruning shears, sprayer for pest control, etc.) 4-5 Strengthening of farmers organization and promotion to bring in financial institutes 4-6 Improvement of primary tea processing facility, and establishment of commercial tea processing facility 4-7 Establishment of production center and a brand		- Baseline study report - Report on tea market study - Data on quality and price standards - Pilot activity proposal - Guidelines for local government - Seedlings of appropriate varieties - Extension materials for tea farmers - Farming tool instruction leaflets - Demonstration farm - Campaign, posters - Records of studies on quality and yield - Record of farm activity, data on crop yield - Training record, Work record of processing factory - Annual report					
Inputs							
1. Experts on 1-1 Industrial crop (Tea) 1-2 Tea processing technique 1-3 Processing machines 1-4 Marketing/Distribution system 1-5 Participatory development 1-6 Monitoring and evaluation		2. Material and equipment for pilot activities 2-1 Equipment for technical demonstration farm 2-2 Processing equipment 2-3 Vehicle (loading capacity: 2 tons) 3. Teaching materials, Guidelines for crop cultivation, etc. 4. PC, AV and training equipment					
Recommendations							
1. Establishment of production center should not be carried out in a top-down manner. Instead, it should be done while the farmers understand the market needs. Expected results will not be attained without organizing farmers or changing their ways of thinking concerning their acceptance of local government services. Adoption of community development approaches is essential.							
2. Although tea leaf production has been going on in Son La, accumulated know-how from the basic studies and experiments hardly exists. For this reason, implementation of the tea pilot scheme shall be carried out first in the priority districts while receiving technical assistance from the Northern Mountain Area Agro-forestry Science and Technology Institute.							
3. Currently, tea seedlings are supplied to farmers by the state tea farm as one of its work functions. However, the amount for supply is not enough due to low working capacity of nurseries. To overcome the situation, farmers are producing their own seedlings with cutting practice. These are not evenly healthy and good seedlings. Preparation of good seedlings using recommended/good varieties and their distribution are urgently needed.							

Sector	Market-Oriented Agricultural Promotion		
Program	Local Industrial Crop Production Improvement Program		
Action Plan	Quality Improvement of Coffee in Son La Province		
Implementation Period	6 years (Phase I: Pilot activities, Phase II: Expansion of activities to the whole province)		
Target / Area	The whole area of Son La Province is targeted with Quynh Nha District and Mai Son Districts as priority areas. Coffee producing farmers, related technical extension agents, coffee processors, etc.		
Implementation Agency	DARD	Agencies Concerned	DIT, Agricultural Extension Center
<p>Objectives</p> <p>The area of coffee cultivation in Son La province is about 2,900 ha, accounting for 90 % of the coffee production in the Northwest Region. The processing capacity of the coffee factory in Son La with annual production of about 1,000ton is the largest in the Region. The factory purchases raw beans from local coffee farmers in the Province. MARD announced its policy to prioritize quality improvement of coffee. Under the policy, the total coffee cultivation area in the country is to be maintained at 0.5 million ha while added value of coffee is to be increased. It is also scheduled to produce an organic coffee so as to develop new coffee market. Low productive coffee plantation is recommended to diversify for rubber tree forestation. Based on thorough understanding of the market needs, this action plan aims to expand marketing channels of coffee produced in Son La province while focusing on quality improvement.</p> <p>The major area of coffee production in Vietnam is the Central Highlands where robusta coffee is cultivated. In the Northwest Region, robusta was changed into Arabica lately to establish a local specialty. In a coffee processing factory in Son La, drying and husking practice is being done for coffee bean processing. Furthermore, sorting of raw beans (green beans) and drying in the sun are repeated for reduction of moisture contents (up to 10 to 12%) so that only good green beans are distributed to the major coffee traders. For this reason, coffee produced in Son La has not yet established itself as a local brand, which is considered to be a challenge in the expansion of the marketing channels.</p> <p>The largest bottleneck of coffee industry in Son La is that the amount of purchase of coffee beans by the factory is unstable. Such instability makes coffee farmers uneasy and worried. According to a recent study, the amount of coffee beans bought by the factory makes the factory operate in only 30% of its full working capacity. This is due to shortage of fund to purchase coffee beans and the fact that the quality of the green beans in the province does not satisfy the market needs.</p> <p>This action plan reexamines the coffee industry in the Northwest Region to raise the added value of coffee through quality improvement and establish a local brand with a view on market expansion in the future.</p>			
Project Area: Son La Province		Organizations	
<p>Priority districts of this action plan (2 districts)</p> 		 <p>PPC: Provincial People's Committee DIT: Department of Industry & Trade DPI: Department of Planning & Investment DARD: Department of Agriculture & Rural Development CA: Cooperative Alliance</p>	

Project Summary								
Overall Goal Added value of coffee industry in Son La and income of coffee-producing household are increased			Outputs 1. Establishment and demonstration of appropriate technique for coffee cultivation (pilot activities) 2. Establishment and demonstration of appropriate technique for coffee processing (pilot activities) 3. Quality improvement of coffee in the province 4. Increase of the amount of coffee production in the province					
Project Purpose Coffee produced in Son La Province is established as a brand well known in domestic and international market as a local specialty product of the province, and the supply system of coffee that would meet the demand is established								
Activities			Reports and Materials		Annual			
			1	2	3	4	5	6
Productivity improvement scheme for coffee plantation								
1. Baseline study and planning of pilot schemes (50 ha x 2 sites)								
1-1 Baseline study on agricultural conditions (cultivation technique and household economy) among coffee producers			- Baseline study report					
1-2 Study on coffee purchases and domestic and international trade			- Report on coffee market study					
1-3 Quality standard of raw materials, establishment of quality and price, production technique and issues to overcome			- Data on quality and price standards					
1-4 Selection of pilot scheme areas, designing of scheme and consensus building			- Pilot activity proposal					
2. Implementation of coffee bean production pilot scheme								
2-1 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation method, etc.			- Guidelines for local government					
2-2 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods, technical training, etc.)			- Seedlings of appropriate varieties					
2-3 Introduction of appropriate farming tools (shears or scissors for pruning, sprayer for pest control, etc.)			- Extension materials for coffee farmers					
2-4 Measures to improve and strengthen the institutional supporting services for coffee production (including farmers' organization, institutional financing, etc.)			- Farming tool instruction leaflets					
2-5 Improvement of primary processing facilities								
2-6 Establishment of production center (quality improvement, improved efficiency of procurement of raw materials and processing)			- Demonstration farm					
2-7 Government campaign to establish market channels and popularize the northwest brand			- Campaign, posters					
2-8 Monitoring and evaluation of the activities			- Records of studies on quality and yield					
3. Training and guidance of coffee production technique for agricultural extension staff, etc.								
3-1 Technical transfer and practical training of provincial and district agricultural extension officers			- Record of farm activity, data on crop yield					
3-2 Practical training and guidance of extension workers and key farmers through operation and management of the demonstration farm			- Training record, Work record of processing factory					
3-3 Technical transfer on appropriate coffee processing practices to processing engineers								
4. Extension to other districts								
4-1 Selection of target area and consensus building on activity implementation			- Annual report					
4-2 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation methods, etc.								
4-3 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods, technical training, etc.)								
4-4 Introduction of appropriate farming tools (shears or scissors for pruning, sprayer for pest control, etc.)								
4-5 Strengthening of farmers organization and promotion to bring in financial institutes								
4-6 Improvement of primary processing facility, and establishment of commercial product processing facility								
4-7 Establishment of production center and a brand								
Inputs								
1. Experts on			2. Material and equipment for pilot activities					
1-1 Industrial crop (Coffee)			2-1 Material and equipment for technical demonstration farm					
1-2 Coffee processing technique			2-2 Processing equipment					
1-3 Processing machines			2-3 Vehicle (loading capacity: 2 tons)					
1-4 Marketing/Distribution system			3. Teaching materials, Guidelines for crop cultivation, etc.					
1-5 Agricultural cooperative			4. PC, AV and training equipment					
1-6 Monitoring and evaluation								
Recommendations								
1. Establishment of production center/area should not be carried out in a top-down manner. Instead, it should be done while the farmers understand the market needs. Expected results will not be attained without organizing farmers or changing their ways of thinking concerning their acceptance of local government services. Adoption of community development approaches is essential.								
2. Although coffee production has been going on in Son La Province, accumulated know-how from basic studies and experiments hardly exists. For this reason, implementation of the pilot scheme shall be carried out first in the priority districts while receiving technical assistance from the Northern Mountain Region Agricultural and Forestry Technology Institute.								
3. Currently, coffee seedlings are supplied to farmers by the state coffee farm as one of its work functions. However, the amount for supply is not enough due to low working capacity of the nurseries. To overcome the situation, farmers are producing their own seedlings. Seedlings are not cut evenly (irregular size), thus, are not healthy and good seedlings. Preparation of good seedlings of recommended/good varieties and their distribution are urgently needed.								

Sector	Market-Oriented Agricultural Promotion		
Program	Agribusiness Promotion Program		
Action Plan	Production and Marketing of High Quality Dairy Products in Son La Province		
Implementation Period	6 years		
Target / Area	Private sectors and dairy farmers who are aiming to produce and distribute high quality dairy products		
Implementation Agency	DARD	Agencies Concerned	DIT, DPI, FIRI

Objectives

Development of the agribusiness which is mainly composed of agro-processing is indispensable, for industrialization of Northwestern regions towards 2020. The agribusiness promotion program proposed by a master plan is the program which premised introduction of the private capital, and the private-sector firms which have an investment incentive to Northwestern regions is indispensable. Under the strong initiative of the administration towards Northwestern regions development, and while regularization of the law system and establishment of the enterprises under Government-private sector cooperation, to specify the success example at an early stage is wished.

With this action plan, production increase and quality-management support is carried out for both dairy farmers and dairy products processing enterprises, who are aiming to increase the quality of dairy products which is a specialty product of Son La Province, and also the production increase of the water buffalo milk can be expected which is high quality materials for dairy products

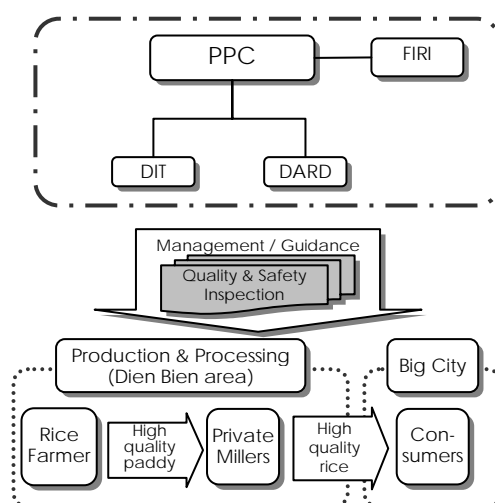
Since quality inspection and safe verification will be performed by the specialized agency, consumers can secure safe and high quality milk and dairy products.

During actual proof investigation, dairy farmers will confirm the importance of the quality management of the raw milk, and also confirm high quality material milk can be processed into high quality dairy products which generate new added value. During these activities, staffs of DARD and agricultural extension center will extract the subject of agricultural technique instruction towards improvement of quality of paddy. On the other hand, MPI-DPI performs required administrative services to maintain the investment-environment of private sectors.

Project Area: Son La Province



Organizations



DIT: Department of Trade & Industry
DARD: Department of Agriculture & Rural Development
FIRI: Food Industry Research Institute

Project Summary												
Overall Goal					Outputs							
1. The income of farmers will be diversified, increased and stable.					1. Since preferential treatment is planned by the Government authorities to the dairy farmers and dairy products processing enterprises, they can tackle dairy farming and processing very enthusiastically.							
2. The differentiated specialty product is produced by utilizing the resources peculiar to Northwestern regions.					2. Since High quality milk and dairy products will be produced, cash income of both dairy farmers and dairy products processing enterprises will increase.							
Project Purpose					3. Since quality inspection and safe verification will be performed by the specialized agency, consumers can secure safe and high quality milk and dairy products.							
1. High quality Dairy Products will be developed and produced by private sectors.					4. It is consistently carried out from dairy farming to dairy processing under proper technology, a production and processing loss decreases through a whole period.							
2. The cash income of the dairy farmers will be improved.												
Activities					Reports and Materials		Annual					
							1	2	3	4	5	6
1. Actual proof investigation for production and sales of high quality milk and dairy products.												
1-1Market survey of high quality milk and dairy products.					- Database of client							
1-2To deepen the awareness for quality improvement of DARD staff and dairy farmers.					- Record of workshop							
1-3To produce high quality crude milk (Improvement of milking system etc.)					- Instruction manual							
1-4Introduction of pilot modern crude milk storage					- Operation manual							
1-5Processing and produce of high quality milk and dairy products					- High quality milk and dairy products							
					- Package							
1-6Development of the packages					- Sales record							
1-7Sales promotion at retail shops in Hanoi					- Brochures							
1-8Advertisement of high quality Son La Milk and dairy products												
2. Acceleration of the investment for private dairy products processors (Study at MPI level is needed)												
2-1Tax break measure												
2-2Promotion of practical use of long-term and low-cost loan.												
2-3Acquisition support of industrial land												
2-4Promotion of maintenance of an infrastructure (electricity, road)												
3. Improvement of the production environment to dairy farmers												
3-1Promotion of practical use of low-cost loan of the cultivation fund to dairy farmers												
3-2Stable supply of the seed and farming equipment at low price to dairy farmers.												
3-3Promotion of maintenance for agricultural infrastructures (paddy field, field road, irrigation equipment etc)												
4 Instruction of production management for high quality milk and dairy products												
4-1To deepen the awareness for value chain					- Instruction manual							
4-2Unification of the production variety					- Instruction manual							
4-3Rationalization of dairy farm work, milking and storage					- Instruction manual							
4-4Quality inspection and safe verification of milk and dairy products by specialized agency					- Quality/safety standard							
4-5Purchase contract of the milk between dairy farmers and processors					- Instruction manual							
4-6Collection and receiving of the crude milk					- Brochures							
5 Capacity increase of DPI and DARD												
5-1Guidance about cultivation technology					- Instruction manual							
5-2Guidance about production, processing and quality control technology					- Instruction manual							
5-3Guidance about formation and expansion of sales network					- Instruction manual							
5-4Monitoring appraisalment of overall project					- Appraisal report							
Inputs												
1. Experts on					1-6 Agricultural cooperative expert							
1-1 Dairy Products processing expert					2. Equipment and materials for pilot project							
1-2 Animal Health expert					2-1 storage device							
1-3 Dairy Products distribution expert					2-2 4WD truck for paddy collection and rice delivery (2 ton)							
1-4 Legal system expert					3. Expense for workshop and training meeting etc.							
1-5 Finance & taxation expert					4. Teaching materials and training manual etc.							
Recommendations												
1. To improve the low system for the investment and taxation, in order both dairy farmers and dairy products processing enterprises will have volition to take part in the planning of.												
2. Farming cow variety should be selected mainly from the traditional species, which local farmers can continue traditional agricultural system without uncomfortable.												
3. In production of the high quality milk and dairy products, an organic farming should be taken in as much as possible, and “Safe Milk” and “Safe Dairy Products” are advertized to the consumers in large cities.												
4. Quality inspection and safe verification system of milk and dairy products by specialized agency will be established. A severe quality management is performed and to produce final products which can obtain a consumer confidence.												
5. Regarding the processing know-how and quality standard for the products should be investigated with FIRI (Food Industry Research Institute) in order to prove worthy of consumer’s trust.												
6. The Government authority’s side performs fair agency so that the dairy farmers and a private sectors can take part in this plan in comfort.												

Sector	Market-Oriented Agricultural Promotion		
Program	Safe Crops Production Program		
Action Plan	Establishment of Clean Vegetable Center (CVC) in Son La Province		
Implementation Period	3 years		
Target / Area	Vegetable producing households in Son La Province		
Implementation Agency	DARD	Agencies Concerned	Department of Crop Production (MARD) , Agricultural Extension Center, etc.

Objectives

Based on the market needs for safe food, MARD started in 2006 to offer guidance on safe vegetable production in 28 provinces in Vietnam. Promotion of safe vegetables and organic farming has been taking place ever since. As a result, Da Lat, Lam Dong Province, a leading vegetable production area in Vietnam, became a production center for safe vegetables for overseas market. Volume of safe vegetable shipping from Da Lat has been increasing annually. Those vegetables from Da Lat are sold in domestic markets such as in Ho Chi Minh at about 15% higher prices, showing that added value of safe food is being recognized in Vietnam. After joining the WTO, MARD has been carrying out a policy under which crop safety above the international standard is sought, while adopting ASEANGAP which is GAP (good agricultural practice) for the 10 countries of ASEAN. MARD is preparing for VIETGAP that meets the conditions of Vietnam. Interest in safe crops is, thus, expected to increase.

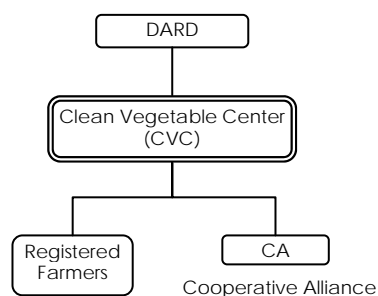
Moc Chau District in Son La Province is located at high altitudes and cool-cum-humid climate to which production of vegetables is best suited. Some private investors have mobilized their commercial farms and produces vegetables, fruits and flower toward the Hanoi market. This M/P aims to establish production center for safe crops (especially vegetables) with involvement of private firms. As vegetable cultivation by organic farming methods requires more labor for farm management (e.g. weeding is much harder if without the use of chemical herbicide), thorough understanding of the meaning and significance of safe vegetable by farmers is needed for sustainable production. Unless the farmers acknowledge the increasing market needs for safe vegetables, and experience the price advantage comparable to their hard labor, the level of incentive (farmers' motivation) for production cannot be maintained. By using the above safe vegetable farm to establish production technique and give assistance in setting up market channels, public agencies should develop production and marketing of safe vegetables so that those vegetables become attractive to both consumers and farmers. Furthermore, it is noted that there is a high possibility for promotion of organic farming by processing animal waste from dairy farming and hog raising into organic fertilizers. Chemical analysis will be a key issue to prove low or non-chemical residue in organic vegetables and organic fertilizer.

This action plan aims to establish Clean Vegetable Center (CVC) in the safe vegetable farm in order to accomplish the above-mentioned task (development of production and marketing of safe vegetables). This center is to consist of 3 units: a) technical extension, b) organic fertilizer production and c) chemical analysis. The technical extension unit is to establish and extend production technology that follows GAP. Organic fertilizer production unit is to produce organic fertilizer by using by-products of agribusiness and livestock farming and sell it. Chemical analysis unit is to certify the contents of organic fertilizer for the time being. As for the system of activity implementation, DARD of Son La and its Agricultural Extension Center are to co-manage while getting assistance from Department of Crop Production in MARD which is responsible for GAP promotion.

Project Area: Son La Province



Organizations



DARD: Department of Agriculture & Rural Development
 CVC: Clean Vegetable Center
 CA: Cooperative Alliance

Project Summary									
Overall Goal		Outputs							
Production area of safe vegetable is established in Son La with participation of private firms (Son La become popular for its vegetable production with participation of private firms)		1. Clean Vegetable Center (CVC) is established							
Project Purpose		2. Appropriate technique for safe vegetable cultivation is established and demonstrated							
Production technique for safe vegetable is widely practiced by farmers and income of safe vegetable producing households is increased		3. The number of vegetable producing households using organic fertilizer increases							
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
1. Formulation of plan to establish Clean Vegetable Center (CVC) and its construction		- Baseline study report							
1-1 Baseline study on vegetable producing households on the outskirts of Moc Chau District.									
1-2 Visit to safe vegetable producing area in Da Lat, Lam Dong Province for observation and information exchange		- Report on visit to Da Lat							
1-3 Examination of scope of CVC establishment, and consensus building with PPC		- Meeting minute, Agreement record (document)							
1-4 Compilation of planning report on CVC establishment.		- Design document							
1-5 Construction of CVC facility and installation of equipment									
2. Extension of cultivation technique of organic vegetable (1st year)									
2-1 Formulation and implementation of production plan		- Safe vegetable production plan							
2-2 Establishment of demonstration farm, making and distribution of materials for GAP extension		- Extension material							
2-3 Registration of cooperatives and farming households with desires for organic vegetable production		- List of farming households							
2-4 Group/Joint purchase of farm inputs (seeds, agrochemical)									
2-5 Cultivation of organic vegetables in demonstration farm and by registered farming households (Record agriculture)		- Record of farm work							
2-6 Group/Joint sales of products (at CVC)		- Record of study on quality and yield							
3. Promotion to produce and use organic fertilizers and insect repellents at farming household level									
3-1 Guidance on how to prepare compost and/or manure at farming household level		- Work record							
3-2 Guidance on VAC system		- Work record							
3-3 Production and distribution of sap-vinegar, effective micro-organisms (EM)		- Work record							
3-4 Promotion of planting of neem and lemongrass as one of the insect-repellents		- Work record							
3-5 Introduction of companion plants									
4. Experimental production and distribution of organic fertilizer by CVC									
4-1 Study on procurement of raw material and procurement		- Work record							
4-2 Experimental production of organic fertilizer		- Work record							
4-3 Experiment in the demonstration farm on organic fertilizer application									
5. Assistance to establish market channels and promote sales									
5-1 Establishment of market channels, government campaign to popularize the northwest brand		- Posters, Pamphlets/Leaflets							
5-2 Monitoring and evaluation of activities									
Inputs									
1. Experts on		2. Equipment for Clean Vegetable Center							
1-1 Crop cultivation		2-1 Equipment for technical demonstration farm							
1-2 Community development		2-2 Processing equipment							
1-3 Plant pathology		2-3 Vehicle (loading capacity: 2 tons)							
1-4 Marketing and distribution		3. Teaching materials, Guidelines for crop cultivation, etc.							
1-5 Monitoring and evaluation		4. Cost of workshop, training, etc.							
		5. PC, AV and training equipment							
Recommendations									
1. It is essential to show farmers how to produce safe vegetables in the demonstration farm. This is because the farmers need to understand the meaning and significance of organic farming (i.e. safe food and reduction of production cost) before they are fully motivated to produce safe vegetable. Such community development approach is crucial.									
2. Multiple Cropping Center (MCC) at Chiang Mai University’s Department of Agriculture in northern Thailand is likely to be a good model for CVC. From 2003, JICA carried out a 3-year technical assistance project “The project for Appropriate Technology for Reduction of Agrochemical in Northern Thailand (ATRACT)” at Chiang Mai University. Experiences and lessons learned from this project can be utilized in effectively.									
3. In CVC, management of organic fertilizer production unit is recommended to be partially commissioned to private firms in order to utilize their know-how on the matter.									
4. Interview with MARD-affiliated agencies and marketing study are to be done thoroughly because crop selection is going to be the key component. For the time being, prospective crops include baby corn, asparagus, lettuce, petit tomato, pumpkin, white radish, shallot, garlic, red radish, sweet potato, etc.									
5. Large-scale irrigation facility is not needed. Watering by handy pot (watering can) is going to be the basic watering method. Those farming households far away from the water source should use pedal-pump (foot-operated pump).									

Sector	Market-Oriented Agricultural Promotion		
Program	Border Trade Promotion Program		
Action Plan	Infrastructure Development in Border Area of Son La Province		
Implementation Period	6 years		
Target / Area	Moc Chau District and Son Ma District in Son La Province		
Implementation Agency	PPC	Agencies Concerned	MoIT, MARD

Objectives

Son La Province shares the national border with Lao People's Democratic Republic (Laos) with 2 border gates. One is the Pa Hang border gate in Moc Chau District which can be reached from the National Road (NR) No. 6 via the NR No. 43. The other is the Chieng Khuong gate in Song Ma District, reached from the NR No.6 via the NR No. 4G. The total amount of trade in 2006 was US\$ 1.5 million, which is extremely small in scale.

In order to increase the border trade, local specialty products bound for China and Laos need to be developed. Agricultural products are to be made into local specialties under the programs proposed in this M/P such as 1.1 Local Industrial Crop Production Improvement Program, 1.2 Agribusiness Promotion Program, and 1.3 Safe Crops Production Program. Some of these local specialties should be developed into export products which will dominate the future trade with China.

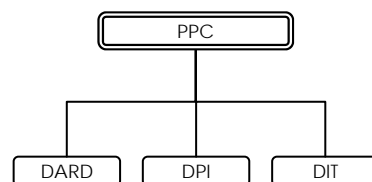
Aside from development of export products, stable development of the border trade requires protection of lives of those who live in the border area and establishment/development of sustainable community programs. Compared to other areas, border areas in the Northwest Region have high poverty rate and their living environment is underdeveloped. For this reason, arrangements need to be made so that rural infrastructure improvement will be carried out in border areas in coordination with Program 135 and/or other poverty reduction projects. Road improvement and adoption of public transport are to be prioritized with construction of infrastructure facilities for rural water, education, health, communication, etc. Increased occasions to raise awareness on prevention of infectious and communicable diseases (HIV-AIDS, malaria, polio) and eradication of narcotics are also necessary to safeguard healthy lives of the local residents, and maintain the social norms and peace/security. Increased production of food in the localities is to be promoted in coordination with 2.1 Remote Area Food Crop Production Program. If investment in border area offers only low incentives, construction of rice mills, flour mills, grain warehouses, and markets will be considered as a part of public services by the local government (although such construction is done by the private firms under normal conditions). Improvement of border facilities for border security, immigration control, customs service, and animal and plant health inspection service in Pa Hong and Chieng Khuong is also necessary.

Trading in the Northwest Region consist not only of economic activities. It serves as human and cultural exchange of ethnic groups that live on both sides of the border, as well. Activities to share sets of values are needed to give consideration for local residents, and conserve local resources as these are the bases of local development. Potential areas for tourism, which can be considered as local resources of the Northwest Region, are scattered in the border areas so that implementation of the Border Trade Promotion Program is to contribute to the development/success of 3.3 Rural Tourism Program. In this action plan, rural infrastructure improvement is to be carried out in order to improve infrastructure for distribution such as roads, public transport, communication, warehouses, distribution centers, etc. and reduce poverty in Moc Chau District and Song Ma District. In addition to that, assistance activities are to be carried out to increase export of agricultural and agro-processed products from the Northwest Region. These activities include advertisement of local specialty products of the Northwest Region bound for Laos, and market research to develop new commercial products.














Project Area: Son La Province



Organizations



DPI: Department of Planning & Investment
 DTI: Department of Industry & Trade
 DARD: Department of Agriculture & Rural Development

Project Summary						
Overall Goal In the border areas of Son La Province, poverty reduction progresses and border trade with Laos grows Project Purpose The amount of trade with Laos increases Poverty rates of Moc Chau District and Song Ma District decrease		Outputs 1. Specialty products of the Northwest Region are recognized in the markets in Laos 2. Border facilities and infrastructure for distribution in Pa Hang, Moc Chau District and Chieng Khuong, Song Ma District are improved 3. Rural infrastructure improvement progresses in Moc Chau District and Son Ma District				
Activities	Reports and Materials	Annual				
		1	2	3	4	5
1. Increase of border trade 1-1 Establishment of information/advertisement center to promote border trade (Exhibition of specialty products of the Northwest Region and establishment of sales stores) 1-2 Border trade promotion campaign led by the government (Internet/HP, newspaper, TV, pamphlets, local information magazines) 1-3 Transmission of information bound for China (Campaigns for specialty products of the Northwest Region and environmental conservation) 1-4 Product fair/show to discover good local specialty products (Award system, PR to trading companies, etc.) 1-5 Events for exchange with China (Cultural exchange events, Environmental conservation events) 2. Improvement of living environment in the border area 2-1 Baseline study to understand living conditions of the local residents (Establishment of GIS database) 2-2 Improvement of transportation means (Road improvement with consideration of linkage with border gates, running of public transport) 2-3 Increase of rural electrification (Required for maintenance of peace/security, use of renewable energy is to be also considered) 2-4 School construction and promotion of primary and adult education (coordination with the Ministry of Education and Training) 2-5 Improvement and construction of medical facility, and improvement of public health (coordination with the Ministry of Health) 2-6 Improvement of means of communication (Expansion of cell phone service area) 2-7 Carrying out measures to improve security (Eradication of narcotics, restrictions on undocumented aliens and migration over the national border) 3. Environmental conservation in the border area 3-1 Improvement of facilities in the national parks and natural reserves (strengthening of tourism center) 3-2 Strengthening of surveillance system to prevent damages to environment (coordination with the border patrol/police)	- Exhibition, sales stores - Internet/HP, newspaper, etc. - Pamphlets and posters for China - Record of product fair/show - Planning paper and report on event - Baseline study report - Annual report on road improvement activities - Record/log of public transport - Annual report on electrification activities - Annual report on education activities - Annual report on communication activities	     	    	 		
Inputs						
1. Experts on 1-1 Area Development 1-2 Rural Infrastructure 1-3 Marketing and Distribution 1-4 Community Development 1-5 Project Monitoring and Evaluation	2. Equipment and Material 2-1 Equipment and materials for education and training of engineers 2-2 Equipment to manage demonstration farm (AV equipment, etc.) 2-3 Farm tools and equipment to manage demonstration farm 3. Cost for workshop and training 4. Manual and teaching equipment					
Recommendations						
1. Not only to have the two districts with border gates function as trading routes (crossing points), but also to have border trade bring positive impacts on local economy, it is necessary to improve livelihood of the local people while creating opportunities for them to participate in economic activities. As stabilization of people's livelihood requires improvement of food security, strenuous implementation of 2.1 Remote Area Food Crop Production Program is likely to be effective. 2. Promotion of product development that satisfies the need of Laotian market is necessary. Such promotion can be carried out in 1.1 Local Industrial Crop Production Improvement Program, 1.2 Agribusiness Promotion Program and 1.3 Safe Crops Production Program under the development issue on Market-Oriented Agricultural Promotion. 3. As various government agencies are to involve with the promotion of border trade, efficient and smooth implementation system is likely to be established if 1) this program starts upon the initiative of MPI's Department of Trade and Services, and 2) each program component has its own implementation agency to carry out the activities.						


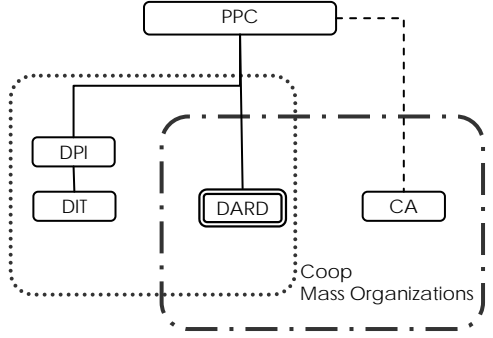
Sector	Food Security Improvement in the Northwest Region		
Program	Remote Area Food Crop Production Program		
Action Plan	Maize Production Improvement in Remote Areas of Son La Province		
Implementation Period	6 years		
Target / Area	Areas in Son La Province where food is not self-sufficient Priority areas are Thuan Chau District and Mai Son District Farmers in remote areas, agricultural extension workers, key farmers, and those from agricultural cooperative, seed enterprises		
Implementation Agency	DARD	Agencies Concerned	DIT, DPI

Objectives

Son La Province has small arable land in its low plains due to geographical constraints. Average area of paddy rice field per person is only 0.03 ha. However, Son La Province has many remote/secluded places in its mountainous areas where transport of farm inputs and extension services hardly reaches. The average yield of paddy rice is relatively low at 3.5 to 4.5 ton/ha and the rate of rice sufficiency is only 50% of the national average. In the past, self-sufficiency of rice was upheld by upland rice cultivation on mountain slopes. Total area of upland rice is 15,000ha and Total production is 17,000 ton (1.2 ton/ha).

There are limited potential areas for paddy field in Son La. As well, it is also recognized that yield improvement in the existing paddy field faces lots of constraints. Therefore, it is recommended to continue on-going efforts for crop diversification with maize, tuber crops and legumes so as to reduce risks of crop failures. The Action Plan focuses on increased maize production Since potential yields of upland rice are generally low compared to maize, it is also recommended to minimize planted area of upland rice gradually.

As for food crop production, the following actions should be taken, namely 1) extension of good improved varieties, 2) extension of technique for appropriate use of agricultural inputs, 3) streamlining/rationalization of farm work and intensification of cropping system and 4) extension of appropriate farming tools. In order to improve potential yield of maize, more certified seeds will be required. Moreover, land consolidation by terraced fields and irrigation water supply by rehabilitation of existing irrigation schemes will largely contribute to increased food production in Son La. For extension of agricultural technique, existing agricultural extension workers, key farmers, and those from agricultural cooperative, youth union, and other groups for agricultural extension are to be guided and trained to develop their technical capacity.

Project Area: Son La Province	Organizations
<p>Priority districts of this action plan (2 districts)</p> 	 <p>PPC: Provincial People's Committee DIT: Department of Industry & Trade DPI: Department of Planning & Investment DARD: Department of Agriculture & Rural Development CA: Cooperative Alliance</p>

Project Summary										
Overall Goal			Outputs							
Establishment of sustainable system of food security in Son La Province			1. Stable increase of maize production							
Project Purpose			2. Eradication of food-insufficient communes through increased production of food crops and rice							
Production of major food crops is increased in a stable manner			3. Commercialization of excess products through quality improvement							
Quality of excess product for commercialization is improved										
Activities			Reports and Materials		Annual					
					1	2	3	4	5	6
1. Baseline Study for Pilot Activities										
1-1 Selection of sites by DARD			- List of selected sites							
1-2 Baseline study on assistance activities on agriculture and extension			- Baseline study report							
1-3 Review food crop cultivation technique and examination of appropriate technique			- Manual for appropriate cultivation method							
1-4 Study on farmers' organization and their activities										
1-5 Formulation of implementation plan of pilot activities			- Pilot activity plan							
1-6 Explanation of the plan to the people in the selected sites and consensus building			- Agreement for activity implementation							
2. Pilot activities for food self-sufficiency with Maize cultivation at its center										
2-1 Training and guidance of agricultural extension staff in province and districts										
2-1-1 Formulation of implementation plan			- Implementation plan document							
2-1-2 Training and guidance of agricultural extension officers			- Training record							
2-1-3 Strengthening of means of transport for agricultural extension officers, and preparation of budget for their activities			- Plan of Operation							
2-1-4 Establishment and management of demonstration farm			- Organization chart, documentation on staff arrangement							
2-2 Strengthening of farmers' organizations (agricultural cooperatives) and increase of their activities										
2-2-1 Human resource development on organization management (training and guidance program)			- Activity manual for cooperatives							
2-2-2 Establishment of agricultural cooperative			- Planning paper for cooperative's activities							
2-2-3 Purchase of production materials and sales of excess products										
2-3 Measures for production increase of food crop including maize and other upland field crops										
2-3-1 Creation of non-paddy terraces (on a slope of less than 15-degree angle)			- Design criteria of terrace field							
2-3-2 Introduction/Adoption and extension of good (including strengthening of technique of state seed companies)			- Distribution record of quality seeds							
2-3-3 Improvement of cultivation method			- Farming practice manual							
2-3-4 Streamlining of cultivation system and intensification of upland farming (adoption of double cropping)										
2-3-5 Extension of appropriate farm implements (weeding hoes, serrated sickles, grain threshers, etc.)			- Farm tools and implements manual							
2-4 Measure for increased production of rice and post-harvesting			- Design criteria for paddy terraces							
2-4-1 Creation of paddy terrace										
2-4-2 Introduction/Adoption and extension of good varieties (including strengthening of technique of state seed companies)			- Manual on paddy cultivation practices							
2-4-3 Improvement of cultivation method, streamlining and intensification of cultivation system			- Manual on organic farming							
2-4-4 Introduction/Adoption and extension of organic farming			- Manual on farm tools and implements							
2-4-5 Extension of appropriate farm implements (ruler for paddy transplanting, rotary weeders, paddy thrasher, etc.)			-							
2-4-6 Improvement of paddy dryer and mill units (managed by cooperative)			- Rice quality survey reports							
3. Extension of technique for increased production of Maize to other areas										
Inputs										
1. Experts on			2. Equipment							
1-1 Upland crop cultivation			2-1 Equipment for technical demonstration farm							
1-2 Irrigations, Paddy cultivation			2-2 Equipment for training and guidance of technical st							
1-3 Agricultural cooperatives			3. Teaching materials, Guidelines for crop cultivation, etc.							
1-4 Participatory development			4. Cost of workshop, training, etc.							
1-5 Monitoring and evaluation			5. PC, AV and training equipment							
Recommendations										
1. It is recommended to extend the terraced fields so as to mainain soil fertilities and prevent soil erosion. It will enable farmers to introduce more intensified farming practices by retaining rainwater and planting in row.										

Sector	Local Revitalization and Diversification of Income Sources		
Program	Non-Timber Forest Products (NTFPs) Promotion Program		
Action Plan	Integrated NTFP Management in Son La Province		
Implementation Period	6 years		
Target / Area	Mai Son district, Phù Yên district and Sốp Cộp district. DARD and district officials engaged in NTFP and Cooperatives engaged in production/processing of NTFP		
Implementation Agency	DARD (Sub-DOF)	Agencies Concerned	NTFP Research Center, Cooperative Alliance (CA), etc.

Objectives

Main NTFPs produced in Son La province are bamboos, rattans and spices. Bamboos are to be used not only as foodstuff but as raw materials for construction, handicrafts, paper making, etc. Production volume of other NTFPs, including spices and medicinal plants, which are cultivated in the farmlands and collected from the protection forests, are not so high enough to export to outside of the region but enough to consume inside the region/province. Although lac and tung-oil tree were produced in high level in the past, those production volumes decreased dramatically because of decrement of demands. According to the results of experimental planting of multi-purpose trees and medicinal plants/herbs by RENFODA project, which are being conducted by JICA in Hoa Binh province (scheduled to be end by September, 2008), some new NTFPs would be introduced into the Northwestern region.

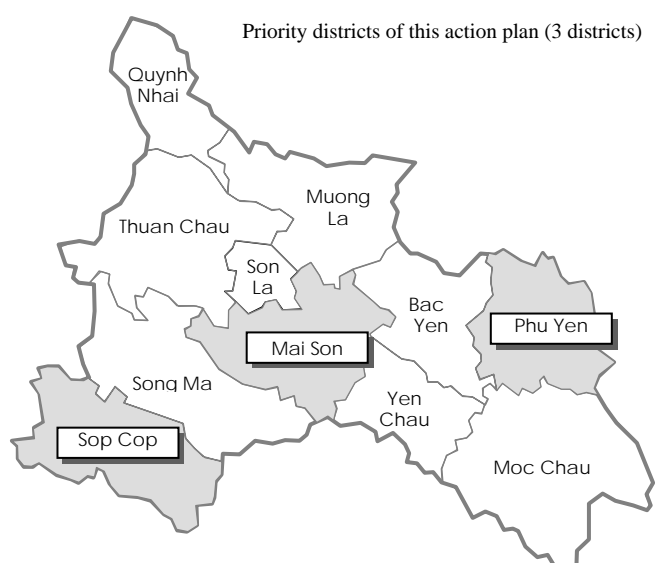
According to the current production of NTFPs in Son La province and results of the aforementioned RENFODA project, assistances for those activities, such as 1) Grasping resource volume of NTFPs, 2) Improving production techniques, 3) Improving processing techniques, 4) Opening up new markets, and 5) Establishing cooperatives, will be conducted for the following NTFPs in the districts of Mai Son, Phù Yên and Sốp Cộp.

- Medicinal plants (Sa nhân, Thảo quả): Mai Son and Phù Yên districts
- Bamboo (Tre nứa, luồng): Mai Son and Phù Yên districts
- Rattan (Song, mây): Mai Son and Phù Yên districts
- Lac (Cánh kiến): Sốp Cộp district
- Tung oil tree (Trầu): Sốp Cộp district

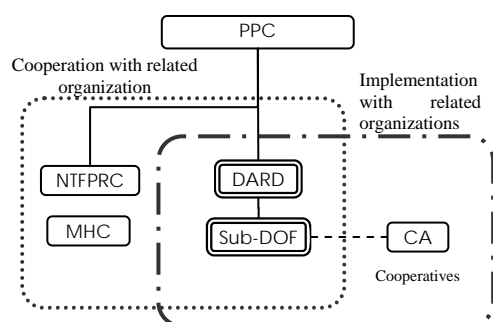
Especially, increment of production volume of some kinds of NTFPs, of which production volume decreased in Son La province, will be examined by means of adding new values, opening up new markets, establishing producers' cooperatives, and so on.

In term of 6) Introducing new kinds of NTFPs, introduction of multi-purpose tree species, such as Sấu and Trám (Trám chim, Trám trắng, Trám đen) and medicinal plants, such as Talauma Giỏi and Ba Kích will be considered.

Project Area: Son La Province



Organizations



PPC: Provincial People's Committee
 DARD: Department of Agriculture & Rural Development
 Sub-DOF: Sub-Department of Forestry of DARD
 NTFPRC: NTFP Research Center in FSIV
 MHC: Ministry of Healthcare
 CA: Cooperative Alliance

Project Summary								
Overall Goal			Outputs					
Income sources of farmers will be diversified and increased. Products which utilize the domestic resources in the Northwester region will be increased.			1. Standing stock and production volume of NTFP products will be grasped. 2. Stable production of NTFP products will be conducted. 3. Processing of NTFP will be conducted and market of NTFPs will be diversified. 4. NTFP Cooperative Alliances will be organized. 5. Knowledge / techniques of staff will be improved by the trainings on NTFP. 6. New kinds of NTFPs will be introduced.					
Project Purpose								
NTFP-related industries will be developed in the target areas. New kinds of NTFPs will be developed and produced in the target areas.								
Activities			Reports and Materials		Annual			
			1	2	3	4	5	6
[1. Grasp of Resource Volume of NTFPs]								
1-1 Grasp of standing stock of NTFPs								
1-1-1 Assistance for grasping of standing stock and used volume of NTFPs			- Database					
1-2 Monitoring on grasping of NTFP resource volume								
1-2-1 Monitoring on grasping of NTFP resource volume			- Monitoring report					
[2. Promotion of NTFP production]								
2-1 Production of seedlings								
2-1-1 Securement / development of NTFP species suitable for Son La province			- Technical manual, database					
2-1-2 Construction / expansion of nurseries for seedlings			- Nurseries					
2-1-3 Production of seedlings			- Technical manual					
2-1-4 Securement of production areas/plantation areas			- Plantation / production areas					
2-1-5 Planting of seedlings			- Technical manual					
2-2 Production/storage of raw materials of NTFPs								
2-2-1 Management/tending of existing production areas			- Technical manual					
2-2-2 Management and tending of planting areas			- Technical manual					
2-2-3 Trainings on production/storage techniques at existing production areas			- Technical manual					
2-2-4 Trainings on production/storage techniques at new production areas			- Technical manual					
2-2-5 Site visits to the advanced areas			- Site visit report					
2-3 Monitoring on promotion of NTFP production								
2-3-1 Monitoring on promotion of NTFP production			- Monitoring report					
[3. Processing of NTFPs and Marketing]								
3-1 Improvement of processing techniques of NTFPs								
3-1-1 Grasping of existing processing techniques of NTFPs			- Database					
3-1-2 Renovating of existing processing techniques of NTFPs			- Technical manual					
3-1-3 Development of new processing techniques of NTFPs			- Technical manual					
3-1-4 Renovation/Construction of processing facilities of NTFPs			- processing facilities					
3-1-5 Site visits to the advanced areas			- Site visit report					
3-2 Diversifying of market of NTFPs								
3-2-1 Grasping of current market of NTFPs			- Database					
3-2-2 Opening up of new market of NTFPs			- Customer list					
3-2-3 Networking with domestic / overseas companies			- Network					
3-2-4 Site visit to the advanced areas			- Site visit report					
3-3 Monitoring on improvement of processing techniques and opening-up of new market								
3-3-1 Monitoring on improvement of processing and opening-up of new market			- Feedback					
[4. Establishing cooperatives for production, processing and marketing of NTFPs]								
4-1 Establishing cooperatives for production, processing and marketing of NTFPs								
4-1-1 Extension / enlightening of necessity of cooperatives			- Extension manual					
4-1-2 establishing the new organization set-up			- new organizations					
4-2 Securing coherences with regulations on NTFP								
4-2-1 Grasping the current legal systems on NTFP			- Database					
4-2-2 Recommendations on new legal systems on NTFP			- Recommendations					
4-3 Monitoring on establishing cooperatives on NTFP								
4-3-1 Monitoring on establishing cooperatives on NTFP			- Monitoring report					
[5. Capacity development of official staffs in Son La province]								
5-1 Trainers' trainings for technical extension								
5-1-1 Technical training on grasping standing stock / used volume			- Training manual					
5-1-2 technical training on seedling production			- Training manual					
5-1-3 Technical training on production management of raw materials			- Training manual					
5-1-4 Technical training on processing			- Training manual					
5-1-5 Technical training on marketing			- Training manual					
[6. Introduction of new kinds of NTFPs]								
6-1 Examination of new NTFPs, including market researches			- New kinds of NTFPs					
6-2 Production of new kinds of NTFPs, including seedling production, plantation, tending			- Technical manual					
6-3 Processing of New kinds of NTFPs			- Technical manual					
6-4 Opening-up of new market on new kinds of NTFPs			- Database, customer list					
Inputs								
1. Experts on			1-6 Training planning		3. Facilities (including temporary facilities)			
1-1 I Social development			1-7 Specific NTFPs (short-term)		3-1 Nurseries			
1-2 Product processing/Food processing			2. Production materials		3-2 NTFP processing facilities			
1-3 Forestry/NTFPs			2-1 Materials for plantation		4. Other materials			
1-4 Marketing			2-2 Materials for seedling production		4-1 Research for existing volume of NTFPs			
1-5 Organization set-up			2-3 Storage/processing of NTFPs		5. Manuals/guidelines			
					6. Personal computers			
Recommendations								
1. Cooperation with related authorities/organizations should be considered for integrated assistance.								
2. Promotion of local NTFP species and introduction of new NTFP species should be conducted to diversify kinds of NTFPs. Participatory methods should be promoted to conduct projects, as consensus building and independence of residents are necessary for sustainable resource management.								
3. Producers-oriented production activities should be promoted by means of establishment of corporative, strengthening of existing organizations and human resources, and strengthening of relationships with clients.								
4. Adequate assistances, such as dispatching individual experts for each NTFP species, on the basis of experts' judgment, as different methods be applied to each NTFP species on cultivation, tending and processing.								
5. Coherence with National Plan on Non-Timber Forest Product (NTFP) Development and Conservation (2005-2020) and results of RENFODA project should be considered.								

Sector	Local Revitalization and Diversification of Income Sources		
Program	Handicraft and Cottage Industry Promotion Program		
Action Plan	Promotion of Specialty Products of Son La Province		
Implementation Period	6 years (Phase 1: Pilot Project Phase 2: Extension over the Whole Area)		
Target / Area	Local business/enterprise and organizations (Cooperatives, Mass organizations) that produce handicrafts and processed food in Son La Province		
Implementation Agency	DARD, Department of Industry and Trade	Agencies Concerned	Cooperative Alliance, Agricultural Extension Center, etc.

Objectives

This action plan consists of Phase I and Phase II, and carries out a pilot activity in which the existing businesses and organizations such as cooperatives and mass organizations serve as entry points. The focus of this action plan is capacity development of local government officers and technical extension officers.

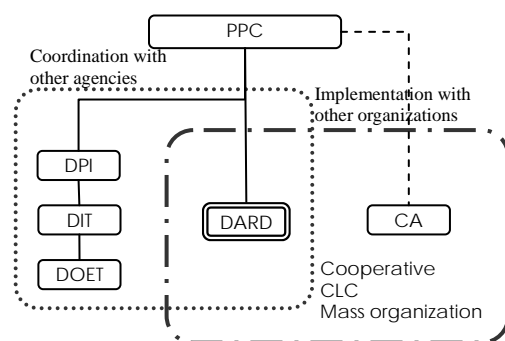
In Son La Province, development of local products such as wine, honey, tea, dairy products, etc. has been carried out in specific areas by the Government's "1 village 1 product" Project. In Phase I, activities such as strengthening of the existing local business in Moc Chau District and Son La Town, technical guidance to increase product competitiveness and meetings to establish an industry cluster are to be carried out. Assistance in marketing, and other activities is also to be carried out. In Phase II, expansion of organizations and introduction/adoption of new products are to be done based on the model activities of Phase I.

Project Area: Son La Province

Priority district of this action plan (1 town and 1 district)



Organizations



PPC: Provincial People's Committee
 DARD: Department of Agriculture & Rural Development
 DPI: Department of Planning & Investment
 DIT: Department of Industry & Trade
 DOET: Department of Education & Training
 CA: Cooperative Alliance

Project Summary								
Overall Goal			Outputs					
Cash income sources of farming households are diversified and cash income is increased Specialty products of the Northwest Region are increased			1. TOT is conducted to develop capacity of local government officers on production assistance and marketing promotion and to reinforce local government services					
Project Purpose			2. Production by local businesses and organizations is improved. Activities are enhanced by development of markets.					
Local industries in the program areas are developed Specialty products of the program areas are developed and produced			3. Industrial cluster is established and model activities for specialty products are carried out.					
			4. Based on the model activities, new activities are developed /carried out.					
Activities		Reports and Materials	Annual					
			1	2	3	4	5	6
【Capacity development of provincial staff in Son La】								
1. Training of instructors for technical extension								
1-1 Capacity development on planning (workshop for local people)		- Instruction manual						
1-2 Assistance to marketing (direct from the producers)		- Data file on markets						
1-3 Establishment of local network for sales promotion		- List of customers						
【Development of businesses/organization that produce handicrafts and processed food】								
2. Improvement of production and its methods								
2-1 Improvement of technique to process crops, NTFP, food, etc.		- Training of farmers						
2-2 Technical training on handicraft production		- Extension of traditional technique						
2-3 Adoption of packaging machine, improvement of package design		- Improvement of packaging technique						
2-4 Study tour to the advanced region		- Enhancement of motivation						
2-5 Product fair/show and gathering for food tasting/sampling for product improvement		- Product fair/show, gathering for food tasting						
3. Improvement of promotion activities for marketing and sales.								
Improvement of business skills								
3-1 Information collection and market analysis of processed food and handicrafts		- Database						
3-2 Training to promote marketing/sales (guidance on customer service, accounting, foreign languages, PC operation)		- Manual, teaching material						
3-3 Improvement of marketing environment in community (Internet, study tour, etc.)		- HP, extension of PC and internet						
3-4 Product fair/show and gathering for food tasting for sales promotion		- Product fair/show, gathering for food tasting						
4. Establishment of industry cluster to develop products for sale								
4-1 Study and research to establish system of product labeling		- Examination of logo and tags						
4-2 Development of specialty product by local government, private businesses, and farming households on contract		- Establishment of place for development of ideas						
4-3 Establishment of system of division of products and packages		- Development of packages of specialty products						
4-4 Establishment of network among enterprises of different industries and in overseas		- Network						
4-5 Conducting meeting to bring in private businesses to the area		- Introduciton of private capital						
5. Extension of activity model to other areas								
5-1 Introduction of models, and visit to the area		- Workshop, Visit/observation						
5-2 Establishment of industrial cluster, product development, and technical guidance		- Specialty products						
5-3 Training to promote marketing/sales (Guidance on customer service, accounting, foreign languages, PC operation)		- Manual, teaching material						
5-4 Improvement of marketing environment in community (internet, study tour, etc.)		- HP, extension of PC and internet						
5-5 Product fair/show and gathering for food tasting/sampling to promote sales		- Product fair/show, gathering for food tasting						
5-6 Conducting meeting to bring in private businesses to the area		- Introduction of private capital						
Inputs								
1. Experts on			2. Equipment for production					
1-1 Social development			2-1 Equipment and material for textile weaving					
1-2 Agricultural and food processing			3. Packaging machine (Vacuum packing machine, Machine to print label and manufactured date)					
1-3 Handicrafts, etc.			4. Manual and teaching material					
1-4 Vegetable cultivation			5. PC, Internet equipment					
1-5 Forestry and NTFP			6. Cost for training and observation					
1-6 Agricultural products, food processing, handicrafts, etc.								
Recommendations								
1. Project implementation agencies should coordinate with the relevant departments and organizations so that comprehensive assistance will be provided								
2. For product diversification, project implementation agencies should try to adopt and extend new production method which uses locally-available materials.								
3. Through activities on organizational strengthening and human resource development, project implementation agencies should encourage cooperatives to carry out production activities with business mind								
4. As each product and activity requires a different method of assistance, appropriate assistance is to be given based on experts' judgment.								
5. In order to bring in private businesses to the area, creation of opportunities, putting things in perspective, and creation of possibilities are to be sought out.								

Sector	Local Revitalization and Diversification of Income Sources		
Program	Rural Tourism Program		
Action Plan	Tourism Village Promotion in Son La Province		
Implementation Period	3 years		
Target / Area	Staff of Department of Culture, Sports and Tourism (DCST), Residents of Son La Town, Moc Chau District, Mai Son District, and Phu Yen, Muong La District		
Implementation Agency	Department of Culture, Sports and Tourism (DCST),	Agencies Concerned	DIT, DPI, DARD, Cooperative Alliance, etc.

Objectives

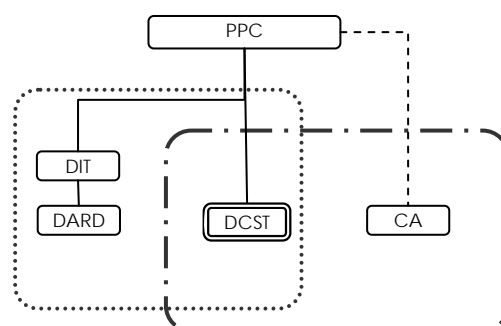
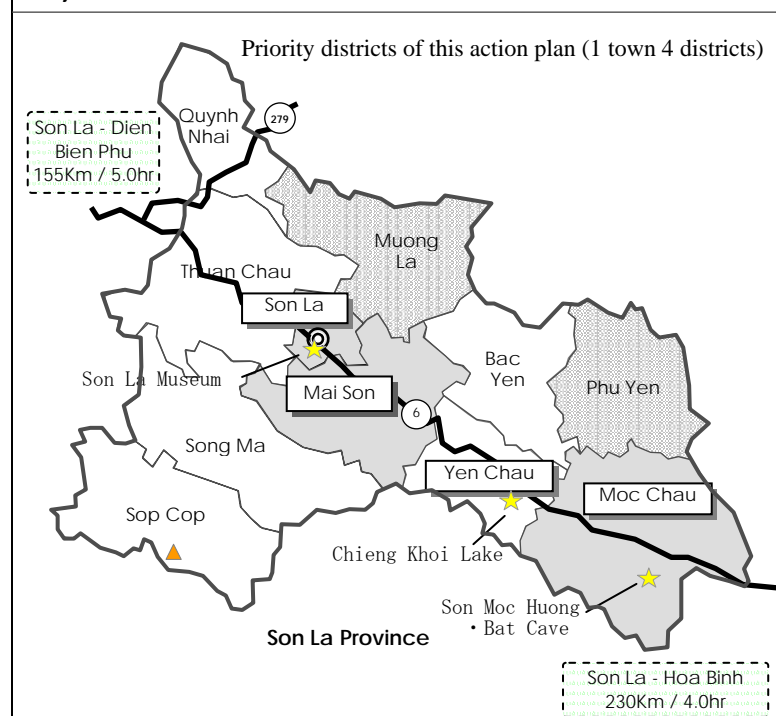
Under the restructuring of the Vietnamese government, the tourism sector of the Ministry of Trade and Tourism was transferred to the Ministry of Culture and Sports in August 2007. As a result, Department of Culture, Sports and Tourism (DCST) under the PPC became the responsible organization for tourism development at the provincial level. DCST is not fully developed in its administrative and management capacity on tourism. This action plan carries out a pilot activity on tourism development in each of the 4 provinces of the Northwest Region while focusing on organizational strengthening of DCST. This action plan is to pay special attention to smooth transfer of know-how owned by Department of Trade and Industry (DTI), which has experience with the study on national tourism master plan (2004), to DCST. As for PR activities on tourism, promotions are to be carried out not by each province, but by the Northwest Region to publicize the whole area.

Son La Province is located 315 km northwest of Hanoi. Transport access to Son La Province is not well developed. It takes about 6 hours to get there by car from Hanoi, and 5 hours by car from the Dien Bien Phu Airport. Although Son La Town, Moc Chau District and Mai Son District Phu Yen District, Muong La District have a) natural resources such as lakes and water falls (Tien Phong, Dai Yen, Que Lam Ngu Che, Tham Ta Toong), and caves (Son Moc Huong, Tham Ta Toong), b) historical and cultural sites such as Van Ho Village (Hmong and Dao), not many tourists come to visit these places. For development of tourism, a) improvement of infrastructures and facilities such as roads and accommodations, c) development of tourism services in the nearby areas, and) more PR/publicities on tourism are needed. In Moc Chau where livestock farming and production of fruits and tea are carried out, development of specialty products is likely to contribute to the development of tourism. In these districts, increased investment in tourism infrastructure development (hotels, hot springs) in the provincial capital is likely to be effective. Such investment is based on the anticipation of tourism boost after the completion of the Son La Dam,.

Tourism development in Son La Province requires different strategies for domestic and foreign tourists. Tours such as educational tours and packaged tours which targets people of all ages are needed for domestic tourists. For foreign tourists who prefer green tourism, improvement to secure travel safety and comfort is urgently needed. New breed of tourism such as agricultural/rural tours including tourism farms, livestock farms and fishing in dam reservoir should be proposed. This action plan is to coordinate with the Handicraft and Cottage Industry Promotion Program, and tries to have local residents break into the tourism through development of retail and service industry. This plan focuses on ethnic minorities, and carries out assistance activities that will deepen the understanding of and interest in their traditional cultures. For future development, increased investment in hotels and restaurants through PPP schemes is to be addressed.

Project Area: Son La Province

Organizations



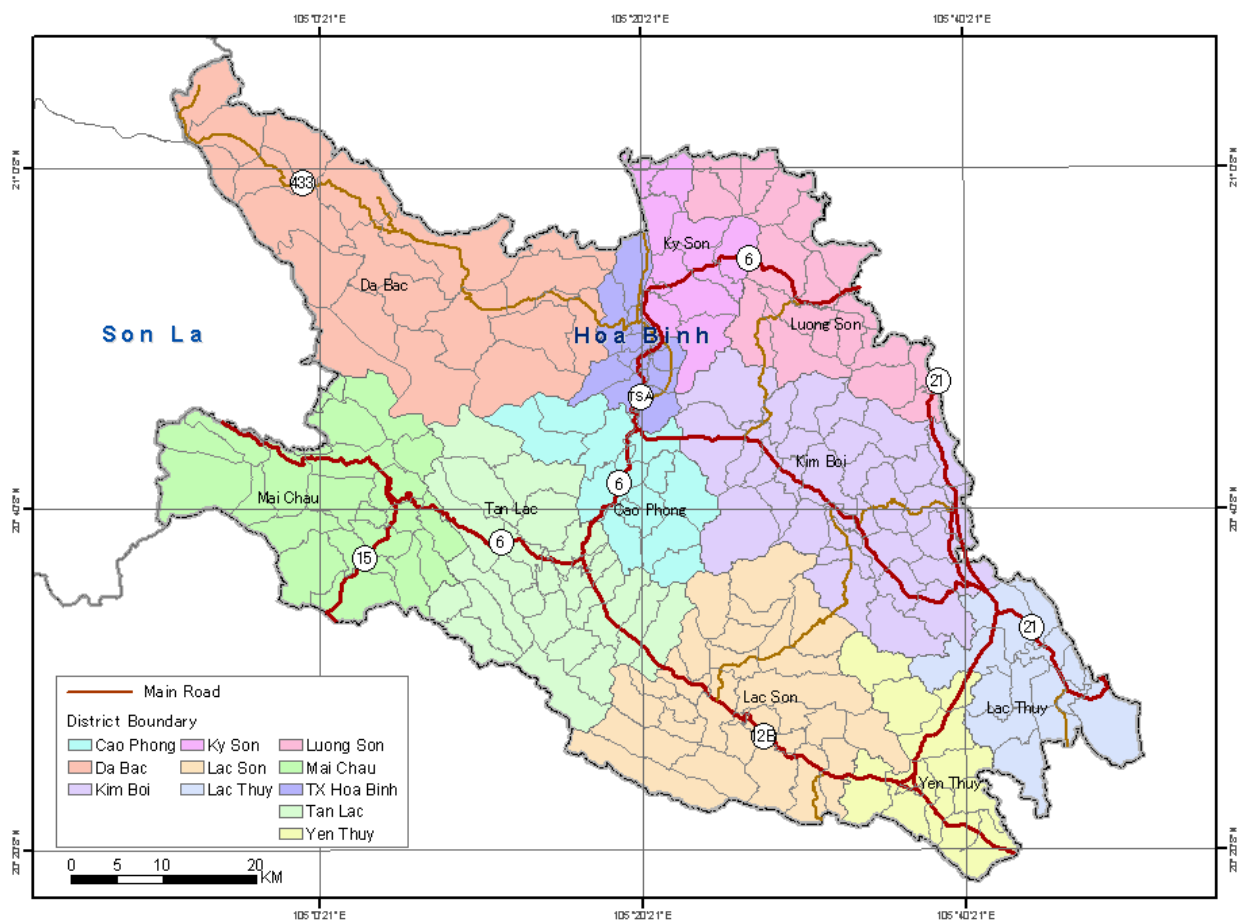
DCST: Department of Culture, Sports and Tourism
DIT: Department of Industry & Trade
DARD: Department of Agriculture & Rural Development
CA: Cooperative Alliance

Project Summary											
Overall Goal While the tourism in the Northwest Region is activated, income sources of farming households are diversified with increased income.				Outputs 1. Capacity of DCST on tourism development is improved 2. Rural tourism and green tourism are carried out (pilot activities) 3. Marketing targeting tourists is carried out 4. Tourism in the Northwest Region is promoted 5. PPP schemes to develop tourism infrastructure are examined							
Project Purpose Tourism is activated in the Program target areas. The number of tourists in the Program target areas is increased.											
Activities				Reports and Materials		Annual					
						1	2	3	4	5	6
1. Capacity development of DCST staff 1-1 Setting up guidelines on rural tourism development 1-2 Collection of data on tourism development in the province 1-3 Capacity development on rural tourism through participation of local residents 1-4 Strengthening of cooperation with other agencies (DCI, DOT, DARD)				- Guidelines for provinces - Report of basic study - Training record - Minute of consultation meeting		<div></div>					
2. Human resource development on rural tourism and green tourism 2-1 Explanation meeting on rural tourism, and awareness study through workshop 2-2 Selection of target area, and consensus building among the local residents concerning implementation 2-3 Language lessons (English, Vietnamese) 2-4 Guidance on management of guest houses, restaurants, etc. 2-5 Establishment of organization to start business on ethnic cuisine, performing arts, etc., and training 2-6 Training of guides for green tourism				- Workshop record - Language lesson - Manual, teaching material - Manual, teaching material - Lecture/Training, Manual		<div></div>	<div></div>	<div></div>			
3. Marketing of rural tourism (feedback to other programs) 3-1 Creation of questionnaires for tourists 3-2 Study meeting of producers of handicraft and processed food 3-3 Establishment of opinion/suggestion boxes (tourism village, hotel, restaurant, airport) 3-4 Holding of spot sales and gathering for food tasting				- Questionnaire - Record of study meeting - Opinion/suggestion box - Campaign, posters		<div></div>	<div></div>	<div></div>			
4. Tourism promotion 4-1 Establishment of information center 4-2 Creation of information ads, pamphlets and tourism maps 4-3 Product fair/show and gathering for food tasting to promote sales 4-4 Holding of events under the theme of ethnic cultures 4-5 Establishment of information/explanation boards				- Information center - Pamphlets - Campaign - Events - Information boards for tourism		<div></div>	<div></div>	<div></div>			
5. Improvement of infrastructure to promote tourism 5-1 Examination to run buses that follow a circular route among tourist destinations 5-2 Explanation and study meetings on PPP schemes targeting businesses/enterprises 5-3 Training/Courses on PPP scheme				- Guidelines - Study meeting - Visit for observation				<div></div>			
Inputs											
1. Experts on 1-1 Tourism 1-2 Social development 1-3 Socio-economy. 1-4 Handicrafts and food processing 1-5 Marketing and distribution				2. Equipment and material for pilot activities 2-1 Equipment for infrastructure improvement 3. Cost for workshop and training 4. Teaching material, guidelines on crop cultivation							
Recommendations											
1. Monitoring of local residents' awareness and willingness, and sensitization of local residents are needed for development of rural tourism. Consensus building and active participation of the residents are also needed. For these activities, promotion of participatory methods is to be done.											
2. Development of agro-rural tourism based on natural environment and unique cultures of ethnic minorities is to be done. Linkages with the primary industry are to be strengthened.											
3. Development of specialty and local products is to be the key to success of rural tourism development: dairy food (soft ice-cream, yoghurt), processed meat and fish (ham, sausage, smoked food), alcoholic beverage (beer, wine)											
4. Coordination with the related departments and agencies as well other provinces is needed to carry out comprehensive PR of the Northwest Region											
5. PPP schemes should have a system in which new activities on accommodation facilities, tourist farms, tourist centers, tourism information boards, etc. can be proposed. Integrated assistance is to be provided.											

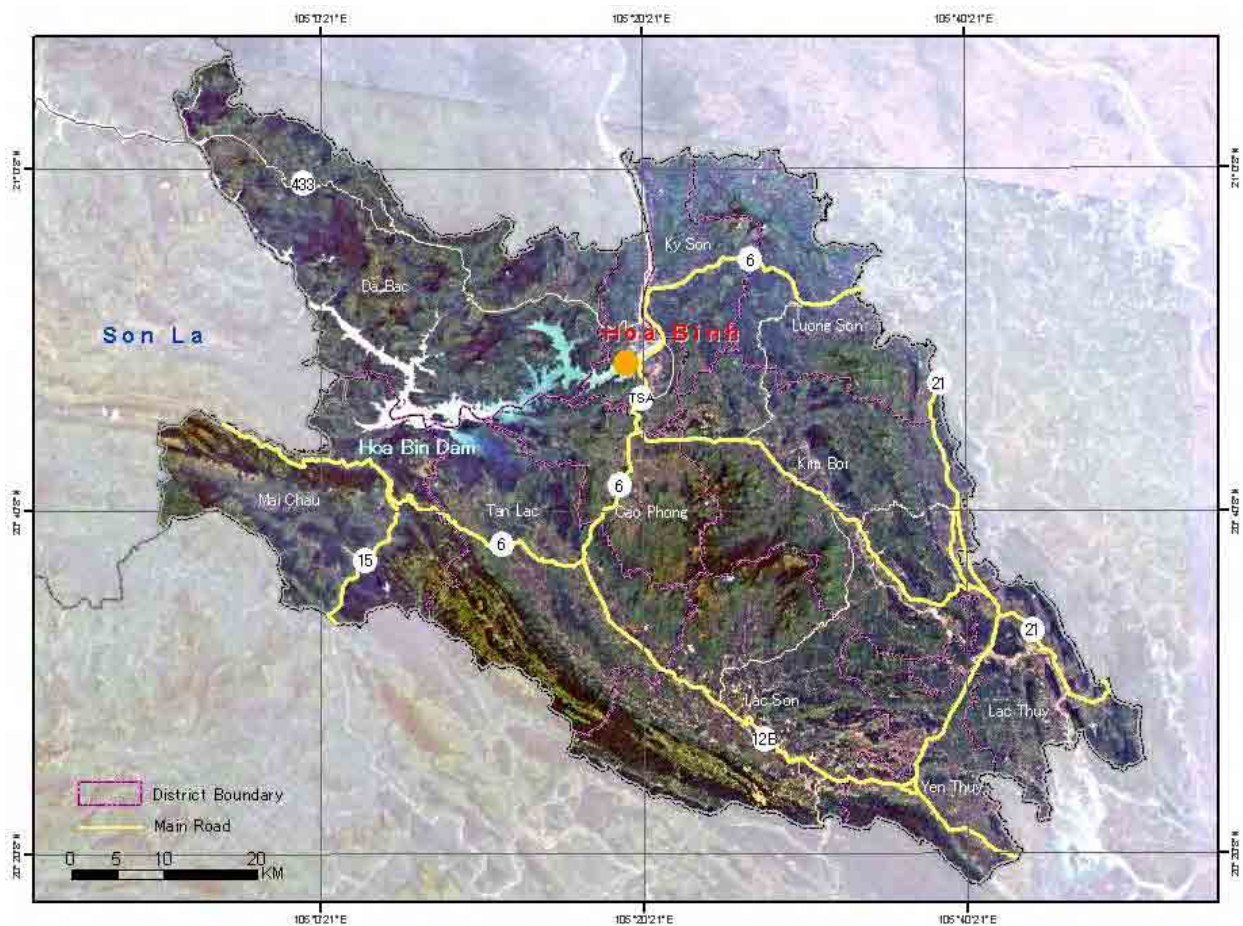
11.6 Action Plan for Hoa Binh Province

Hoa Binh Province

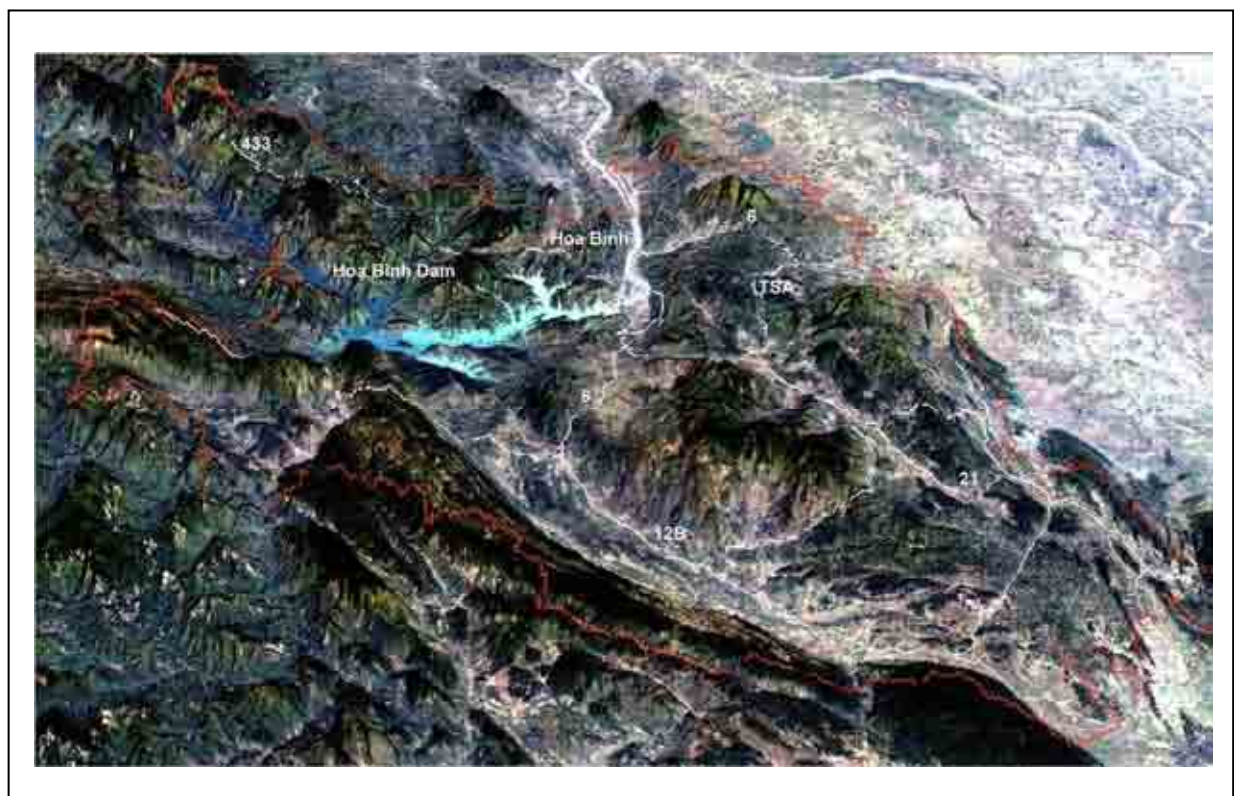
Provincial Master Plan Programs
Action Plans(2010-2015)



Administration Boundaries and Major Road Networks



Satellite Image of Hoa Binh Province



3D Landscape of Hoa Binh Province

Action Plans for Hoa Binh Province

1. Current conditions of Hoa Binh Province

Hoa Binh Province covers the area of 4,684 km² which is only 12% of the whole Northwestern Region. Its population is 830,000 with an extremely high population density of 177 persons / km². (Population density of the Region is 71 persons/ km²) Ethnic groups found in the province include Muong (63% of the provincial population), Kinh (28%), Thai (3%), and Dao (2%). Eighty-two percent (82%) of the workforce is engaged in agriculture. GDP per capita in 2005 was US\$262.

The road from Hanoi to Hoa Binh is 85 km long (National Road No. 6). As it takes only 2 hours by car to get to Hoa Binh, the province is expected to develop as the outskirts of the Hanoi economic zone.

Compared to the other 3 provinces in the Region, the average elevation of Hoa Binh Province is low. Seventy-seven percent (77%) of the province is located between 101 and 500m above sea level. Only 34% of the land area is slope land of over 30 degrees, very different natural environment from the other provinces in the region which are very mountainous. The province has 3 major rivers; Da River, Ma River and Boi River. Eighty-nine percent (89%) of the provincial areas is in the Da River basin while the rest is in the Red River basin. The forest coverage ratio is 44 % which is the highest among the provinces in the Region. It has artificial/man-made forest of 66,000 ha (Total artificial/man-made forest in the Region is 124,000 ha).

Provincial GDP in 2005 was 3.389 trillion VND, which is equal to 32% of the total GDP of the Region. The primary industry accounts for 46% of the GDP. Reliance on agriculture is heavy. Land for cultivation with less than 8-degree slope occupies 24% (113,000 ha) of the whole province. Existing cultivation area is 100,000 ha, which is 21% of the provincial area. Expansion of agricultural land is, thus, limited. Among the cultivated area are upland field (59,000 ha), paddy field (20,000 ha) and orchard, etc. (21,000 ha), accounting for 59%, 20% and 21%, respectively. The ratios of paddy field and orchards are large.

Production amount of paddy and upland rice with husks in Hoa Binh Province was 192,000 tons in 2005. This is equal to 153 kg of rice without husks per person, which is 91% of the national average of 168 kg. Sugar cane is a major crop of Hoa Binh Province. Its production amount is 389,000 tons which is 71% of the total production in the Region (549,000 ton).

2. Action Plans Proposed

Support to profit-oriented agriculture in the suburbs of Hanoi

In Hanoi, consumers' interest in food safety has been gradually increasing. Safety of perishable food cannot be easily ignored even in its production areas. Profit-oriented agriculture is carried out in the suburbs of Hanoi. Under this agriculture protected/greenhouse horticulture is carried out with an aim to produce highly safe vegetables. MARD started technical guidance on clean vegetable cultivation in order to establish process management system of safe vegetable through the adoption of GAP.

Based on the lessons learned from Da Lat, Lam Dong Province, an action plan proposes adoption of contract farming of city-bound safe vegetable in Hoa Binh Province that involves private firms and local farmers. This action plan promotes direct distribution of safe vegetables to first-class restaurants and large super markets in Hanoi. As for establishment of production areas, cooperatives are to play the major role in producing specialized vegetables which are unique only to the province and establishing their market

channels. Commitment by the government is necessary for this action plan. The action plan also proposes government-led guidance on agricultural technology and organic fertilizer production.

Support to Agribusiness

In Hoa Binh Province, development of agribusiness which makes the best of Hoa Binh's good access condition as a part of the Hanoi economic zone has been greatly expected. Agroprocessing industry on sugar and tea is already established. For the future, finding and adopting industrial crops which can be used as raw materials for processing are needed so that a new industry will be established to contribute to local activation (area development).

Promotion of livestock industry is likely to enrich the diet of local people and contribute to poverty reduction in Hoa Binh Province. Based on the experiences of Ha Tay Province, an action plan proposes production of premium dairy products made from milk with high fat content through the adoption of improved species of water buffalo which are highly resistant to diseases and produce large amount of meat and milk.

As a part of agribusiness promotion, an action plan proposes creation of materials and equipment for protected/greenhouse horticulture and agriculture in Hoa Binh Province. Expansion of protected/greenhouse agriculture requires pipes for irrigation and nets against insects. Improvement of agricultural tools is necessary to increase the efficiency of agricultural work. Development and production of agricultural tools based on the examination of farmers and soil conditions are likely to be promising agribusiness.

Increased production of food and improved diet

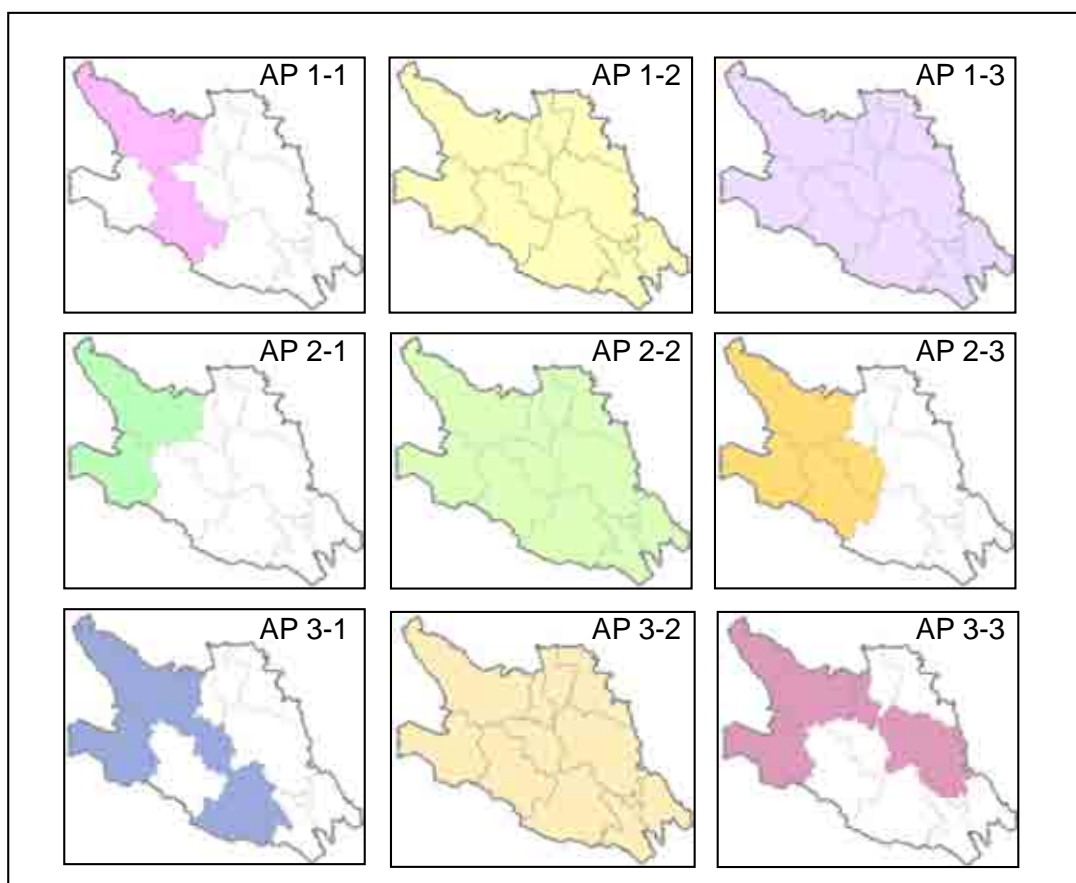
Although the rice shortage in Hoa Binh Province is compensated by marketed rice from the other provinces/regions, self-sufficiency of rice in the province is decreasing continuously. Increased production of rice is a basic issue for the agricultural policy of the province. For the increased production, increase of yield and rate of cultivation (increase of areas of double cropping) and improvement of the existing irrigation facilities are necessary.

Because smooth distribution of food require improved access, improvement and O&M of rural roads are essential. Development of agriculture under the theme of "local production for local consumption" is also important. An action plan proposes increased food production in remote areas through the combination of small-scale irrigation development and provision of quality seeds.

Conservation of aquatic resources

Basic conditions for aquaculture extension in Hoa Binh Province are already met as they have hatcheries. An action plan proposes awareness raising activities for fishing people and development of legal system to conserve aquatic resources and improve administrative capacity. Prohibition of illegal fishing, and limitation of fish catch through establishment of non-fishing area and time/season are big challenges. For effective implementation of the action plan, coordination with Son La Province should be carried out.

Sector	Master Plan Programs		Action Plan		Page
Hoa Binh Province Master Plan					
1. Market-Oriented Agricultural Promotion	1.1	Industrial Crop Production Improvement Program	AP1.1	Quality and Yield Improvement of Tea	11-88
	1.2	Agribusiness Promotion Program	AP1.2	Farm Equipment and Implements Manufacturing	11-90
	1.3	Safe Crop Production Program	AP1.3	Establishment of Clean Vegetable Center	11-92
	1.4	Border Trade Promotion Program	AP1.4		
2. Food Security Improvement	2.1	Remote Area Food Crop Production Program	AP2.1	Rice Production Improvement in Remote Areas	11-94
	2.2	Animal Health and Production Improvement Program	AP2.2	Animal Health Control	11-110
			AP2.2	Introduction of Improved Water Buffalo Breed	11-96
2.3	Inland Fishery Supporting Program	AP2.3	Fishery Resource Management in the Hoa Binh Dam Reservoir	11-98	
3. Revitalization and Diversification of Income Sources	3.1	NTPF Promotion Program	AP3.1	Promotion of Multi-Purpose Trees and Medicinal Plants	11-100
	3.2	Handicraft and Cottage Industry Promotion Program	AP3.2	Roadside Stations Sales Promotion Campaign	11-102
	3.3	Rural Tourism Program	AP3.3	Tourism Village Promotion	11-104
Regional Master Plan					
4. Environmental Conservation and Biomass Energy Development	4.1	Da River Watershed Management Program	AP4.1	Afforestation with Rubber and Other Useful Trees and Agroforestry Promotion	11-112
	4.2	Natural Forest Conservation Program	AP4.2	Management of Special-Use Forests and Establishment of New Nature Reserves	11-114
	4.3	Biomass Energy Promotion Program	AP4.3	Introduction of Biomass Energy Production	11-116
5. Irrigation and Water Supply Development	5.1	Water User Organization Strengthening Program	AP5.1	Water User's Organization (WUO) Strengthening Pilot Project	11-118
	5.2	Mountain Stream Water Use Program	AP5.2	Mountain Stream Multipurpose Use Pilot Project	11-120
6. Rural Road Development	6.1	Rural Road Maintenance Program	AP6.1	Rural Road Operation and Maintenance Pilot Project	11-122
7. Rural Electrification	7.1	Renewable Energy Development Program	AP7.1	Renewable Energy Development Pilot Project	11-124
8. Capacity Building	8.1	Provincial Staff Training for 5 Year Plan Preparation	AP8.1	Formulation of 5-Year Agriculture and Rural Development Plan	11-126
	8.2	Rural Information Database Establishment Program	AP8.2	Northwestern Region GIS Establishment Project	11-128



Action Plan Coverage Maps

Sector	Market-Oriented Agricultural Promotion		
Program	Local Industrial Crop Production Improvement Program		
Action Plan	Quality and Yield Improvement of Tea in Hoa Binh Province		
Implementation Period	6 years Phase I: Implementation of Pilot Scheme, Phase II: Expansion of development schemes to the whole province)		
Target / Area	The whole area of Hoa Binh Province is targeted with Da Bac District and Tan Lac Districts as priority areas. Tea producing farmers, related technical extension agents, tea processors, etc.		
Implementation Agency	DARD	Agencies Concerned	Agricultural Extension Center, Northern Mountain Area Agro- Forestry Science & Technology Institute (Vietnam Tea Research Center)

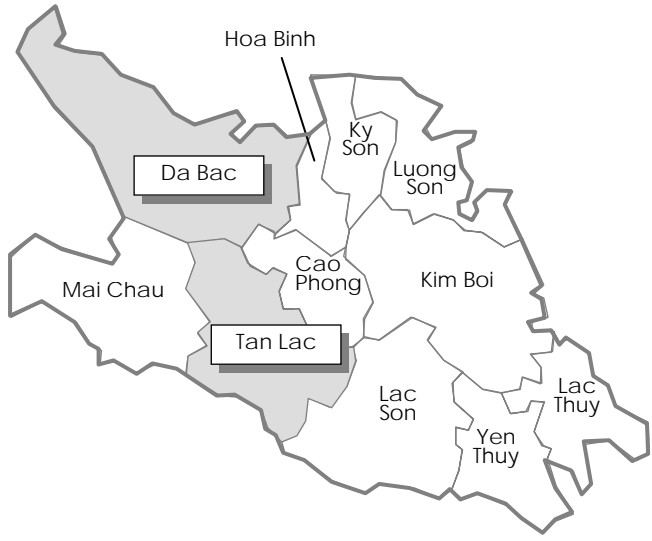
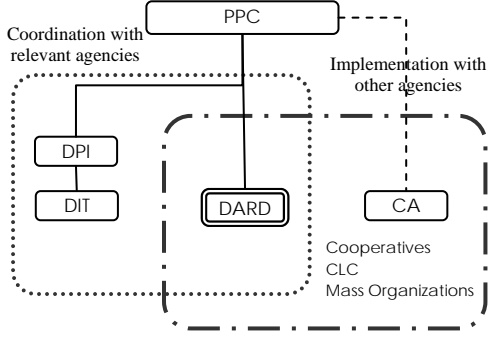
Objectives

Hoa Binh Province is located at high altitudes and cool-cum-humid climate to which production of tea of the Shan variety is best suited. In the past, the state farm did commercial production of tea in which tea was cultivated as a cash crop, its leaves were processed and, then, marketed. Currently, a few tea processing companies exist in the province most of which carries out primary processing of tea leaves, and then sell the processed leaves to larger companies in other areas to finish the tea product. Further effort is needed to have the brand accepted by wider population as regional specialty.

Except for tea field, which is the core of the plantation, and processing facilities, most state-run tea plantations are divided into small blocks and released/transferred to farming households. Tea cultivation and production are, thus, contracted to these households these days. For this reason, production of tea leaves is now done in small-scale tea farms (0.1 to 0.2 ha) by individual farming households. As for tea cultivation technique, conventional cultivation methods are used, and together with low-level maturity of (younger aged) tea plants, the average yield of tea is only about 1.2 ton/ha. Quality improvement has also been stagnant till today.

In order to improve the productivity of tea plantation, and then, stabilize the livelihood of tea farming households in a sustainable manner, improvement of cultivation methods is needed as a measure to increase the unit yield. Also, the current crown-shape of low stem-cum-flat plate type should be changed to that of tall stem-cum-dome type. Tea varieties that are suited to be produced into fermented tea (black tea, oolong tea, etc.) are currently cultivated in the province.

As the demand for tea leaves for drinking and medical use is growing in international market, tea can be considered as a promising commercial crop. In terms of the potential for promotion of tea industry in the Northwest Region, large-scale development can be expected because it is possible to cultivate tea on a mountain slope up to 20 or 22 degrees. Development of tea plantation supplements the vegetation improvement of areas whose soil was weakened due to series of swidden/shifting cultivation over a long period of time. For this reason, development of tea plantation is expected to contribute greatly to watershed conservation

Project Area: Hoa Binh Province	Organizations
<p>Priority districts of this action plan (2 districts)</p> 	 <p>PPC: Provincial People's Committee DIT: Department of Industry & Trade DPI: Department of Planning & Investment DARD: Department of Agriculture & Rural Development CA: Cooperative Alliance</p>

Project Summary											
Overall Goal				Outputs							
Productivity of tea industry and income of tea farming households are both increased.				1. Establishment and demonstration of appropriate technique for tea cultivation (pilot activities)							
Project Purpose				2. Quality improvement of tea product throughout the province							
Tea produced in Hoa Binh Province is established as a brand well known in the domestic market as a local specialty product of the province. Supply system of tea that would meet the demand even in the market is established.				3. Increase of tea production throughout the province							
Activities				Reports and Materials		Annual					
						1	2	3	4	5	6
Productivity improvement scheme for coffee plantation											
1. Baseline study and planning of pilot schemes (50 ha x 2 sites)				- Baseline study report							
1-1 Baseline study on agricultural conditions (cultivation technique and household economy) among tea producing households				- Report on tea market study							
1-2 Study on tea purchases and domestic and international trade				- Data on quality and price standards							
1-3 Quality standard of tea products, setting up of quality and price, production technique and issues to overcome				- Pilot activity proposal							
1-4 Selection of pilot scheme areas, designing of scheme and consensus building with beneficiary farmers (participants)											
2. Implementation of tea plantation pilot scheme				- Guidelines for local government							
2-1 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation method/practices, etc.				- Seedlings of appropriate varieties							
2-2 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods/practices, technical training, etc.)				- Extension materials for tea farmers							
2-3 Introduction of appropriate farming tools (pruning shears, sprayer for pest control, etc.)				- Farming tool instruction leaflets							
2-4 Measures to improve and strengthen the institutional supporting services for tea plantation (including farmers' organization, institutional financing, etc.)				- Demonstration farm							
2-5 Improvement of primary processing facilities				- Campaign, posters							
2-6 Establishment of production center (quality improvement, improved efficiency of procurement of raw materials and processing)				- Records of studies on quality and yield							
2-7 Government campaign to establish market channels and popularize the northwest brand tea (Hoa Binh Tea)											
2-8 Monitoring and evaluation of the activities											
3. Training and guidance of tea leaf production technique for agricultural extension staff, etc.				- Record of farm activity, data on crop yield							
3-1 Technical transfer and practical training of provincial and district agricultural extension officers/agents				- Training record, Work record of processing factory							
3-2 Practical training and guidance of extension workers and key tea farmers through management of the demonstration farm											
3-3 Technical transfer to tea processing engineers											
4. Technical extension/expansion of tea schemes to other districts				- Annual report							
4-1 Selection of target area and consensus building with beneficiaries on participatory activity for tea scheme implementation											
4-2 Adoption of appropriate varieties, supply of good seedlings, guidance on cultivation methods/practices, etc.											
4-3 Establishment and management of demonstration farm (demonstration of appropriate cultivation methods/practices, technical training, etc.)											
4-4 Introduction of appropriate farming tools (pruning shears, sprayer for pest control, etc.)											
4-5 Strengthening of farmers organization and promotion to bring in financial institutes											
4-6 Improvement of primary tea processing facility, and establishment of commercial tea processing facility											
4-7 Establishment of production center and a brand											
Inputs											
1. Experts on				2. Material and equipment for pilot activities							
1-1 Industrial crop (Tea)				2-1 Equipment for technical demonstration farm							
1-2 Tea processing technique				2-2 Processing equipment							
1-3 Processing machines				2-3 Vehicle (loading capacity: 2 tons)							
1-4 Marketing/Distribution system				3. Teaching materials, Guidelines for crop cultivation, etc.							
1-5 Participatory development				4. PC, AV and training equipment							
1-6 Monitoring and evaluation											
Recommendations											
1. Establishment of production center should not be carried out in a top-down manner. Instead, it should be done while the farmers understand the market needs. Expected results will not be attained without organizing farmers or changing their ways of thinking concerning their acceptance of local government services. Adoption of community development approaches is essential.											
2. Although tea leaf production has been going on in Hoa Binh, accumulated know-how from the basic studies and experiments hardly exists. For this reason, implementation of the tea pilot scheme shall be carried out first in the priority districts while receiving technical assistance from the Northern Mountain Area Agro-forestry Science and Technology Institute.											
3. Currently, tea seedlings are supplied to farmers by the state tea farm as one of its work functions. However, the amount for supply is not enough due to low working capacity of nurseries. To overcome the situation, farmers are producing their own seedlings with cutting practice. These are not evenly healthy and good seedlings. Preparation of good seedlings using recommended/good varieties and their distribution are urgently needed.											

Sector	Market-Oriented Agricultural Promotion		
Program	Agribusiness Promotion Program		
Action Plan	Farm Equipment and Implements Manufacturing in Hoa Binh Province		
Implementation Period	6 years		
Target / Area	Private farm implements manufacturers and farmer's groups in Hoa Binh Province		
Implementation Agency	DARD	Agencies Concerned	DIT

Objectives

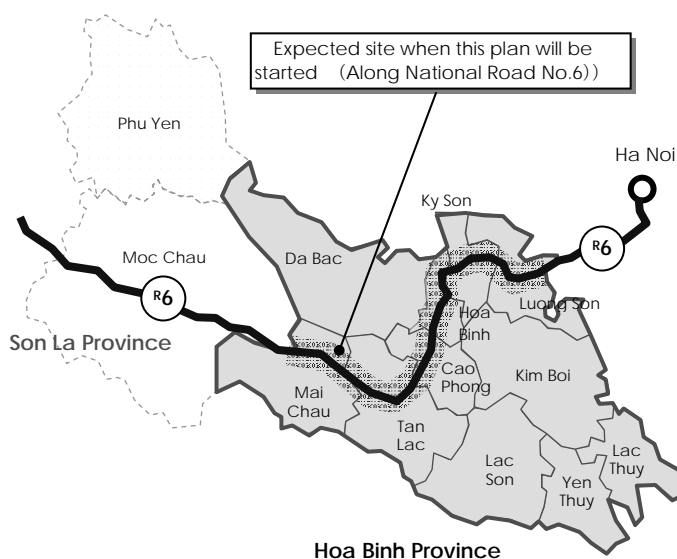
Development of the agribusiness which is mainly composed of agro-processing is indispensable, for industrialization of Northwestern regions towards 2020. The agribusiness promotion program proposed by a master plan is the program which premised introduction of the private capital, and the private-sector firms which have an investment incentive to Northwestern regions is indispensable. Under the strong initiative of the administration towards Northwestern regions development, and while regularization of the law system and establishment of the enterprises under Government-private sector cooperation, to specify the success example at an early stage is wished.

Subject of this action plan is to introduce actual proof of the administrative services to the farm implements manufactures, who are complementing the promotion of agribusiness. In Hoa Binh Province, preferential treatment measure in both tax side and financial side is improved to farm implements manufacturers who has interest positive to production increase and new development of farm implements, and private farm implements manufacturers' scale expansion and improvement in technology are promoted. At the same time, the farm implements flexibly improved according to a demand of farmers are greatly contributed to improvement in agricultural productivity, and such farm implements also contribute the stable ensuring of the agroproducts which are supporting agribusiness.

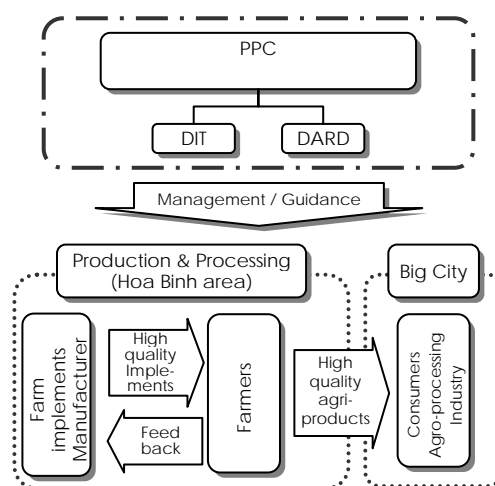
During actual proof investigation, it is shown to rice farm implements manufacturers that implements manufactured uniquely induces a big value-added, and farmers can recognize that the farm implements are improved by their opinion and productivity is improved by using their own designed implements.

During these activities, staffs of DARD and agricultural extension center will extract the subject of agricultural technique instruction towards improvement of quality of implements. On the other hand, MPI-DPI performs required administrative services to maintain the investment-environment of private sectors.

Project Area: Hoa Binh Province



Organizations



DIT: Department of Industry & Trade
DARD: Department of Agriculture & Rural Development

Project Summary								
Overall Goal			Outputs					
1. The income of farmers will be diversified, increased and stable.			1. Since preferential treatment is planned by the Government authorities to the private farm implements manufacturers, they can tackle development and production very enthusiastically.					
2. The differentiated specialty product is produced by utilizing the resources peculiar to Northwestern regions.			2. Since High quality farm implements will be produced, cash income of both implements manufacturers and farmers will increase.					
Project Purpose								
1. Practical and high yield farm implements are developed and manufactured by collaboration development work of implements manufactures and farmers.								
2. The cash income of the farm implements manufacturers and farmers will be improved.								
Activities		Reports and Materials	Annual					
			1	2	3	4	5	6
1. Actual proof investigation for production and sales of high quality farm implements								
1-1Market survey of high quality farm implements		- Database of client						
1-2To deepen the awareness for quality improvement of DARD staff, implements manufacturers and farmers.		- Record of workshop						
1-3Analysis of existing implements and the points to be improved.		- Record of analisys						
1-4Trial manufacturing of implements		- Trial implement						
1-5Test operation and suggestion of improved points by farmers		- Design drawings						
1-6Manufacturing the improved high quality implements		- Manufacturing record						
1-7Sales promotion at ironwork shop		- Sales record						
1-8Advertisement of high quality implements		- Brochures						
1-9Discussion for further improvement of implements		- Record of workshop						
1-10Modification of design		- Drawings						
2. Acceleration of the investment for private ironworkers (Study at MPI level is needed)								
2-1Tax break measure								
2-2Promotion of practical use of long-term and low-cost loan.								
2-3Acquisition support of industrial land								
2-4Promotion of maintenance of an infrastructure (electricity, road)								
3. Improvement of the implements using environment to farmers								
3-1Promotion of practical use of low-cost loan of the cultivation fund to rice farmers								
3-2Promotion of maintenance for agricultural infrastructures (paddy field, field road, irrigation equipment etc)								
4. Instruction of production management for high quality farm implements								
4-1Standardization of implements. Management of designing drawings.		- Instruction manual						
4-2Management of manufacturing record		- Instruction manual						
5. Capacity increase of DPI and DARD								
5-1Guidance about cultivation technology		- Instruction manual						
5-2Guidance about production, processing and quality control technology		- Instruction manual						
5-3Guidance about formation and expansion of sales network		- Instruction manual						
5-4Monitoring appraisalment of overall project		- Appraisal report						
Inputs								
1. Experts on				2. Equipment and materials for pilot project				
1-1 Implements development / design expert				2-1 Machine designing equipment				
1-2 Production technology / mechanical process				2-2 Machine processing facilities				
1-3 Legal system expert				2-3 4WD track for transportation of materials etc. (2ton)				
1-4 Finance & taxation expert				3. Expense for workshop and training meeting etc.				
1-5 Residents participatory expert				4. Teaching materials and training manual etc.				
1-6 Project appraisal / monitoring expert								
Recommendations								
1. To improve the low system for the investment and taxation, in order both implements manufacturers and farmers will have volition to take part in the planning of.								
2. The manufacturers will try to develop and manufacture new implements based on the discussion with farmers while producing existing traditional implements succeedingly. It should be considered that farmers can operate newly developed implements without inconvenient.								
3. Workshops are periodically held by the implements manufactures and farmers so that the improve points or the request of new model etc. may be taken in flexibly.								
4. In the JICA Tsukuba international center, group training course named “Development Farm Machinery for Small-scale Farmers Course” is carried out continuously every year now. Therefore in an effectuation of this plan, it is recommended also in touch closely with experts or lecturers who are in action in above Tsukuba course besides the above-mentioned expert including this action plan, in order to exchange the opinion or information regarding the development or manufacturing technique of agricultural equipment and implements. When required, to dispatch Tsukuba expert for this plan promotion should be examined as a short-term expert.								
5. The Government authority’s side performs fair agency so that the rice farmers and a private sectors can take part in this plan in comfort.								
6. For the time being, a zone along the National highway No.6 line is considered as the proposed site for this plan, where the processing materials etc. tend to obtain. This plan is started by Hoa Binh Province, and develops to other Northwestern regions one by one, discerning a result.								

Sector	Market-Oriented Agricultural Promotion		
Program	Safe Crops Production Program		
Action Plan	Clean Vegetable Center (CVC) Establishment in Hoa Binh Province		
Implementation Period	3 years		
Target / Area	Vegetable producing households in Hoa Binh Province		
Implementation Agency	DARD	Agencies Concerned	Department of Crop Production (MARD), Agricultural Extension Center

Objectives

Based on the market needs for safe food, MARD started in 2006 to offer guidance on safe vegetable production in 28 provinces in Vietnam. Promotion of safe vegetables and organic farming has been taking place ever since. As a result, Da Lat, Lam Dong Province, a leading vegetable production area in Vietnam, became a production center for safe vegetables for overseas market. Volume of safe vegetable shipping from Da Lat has been increasing annually. Those vegetables from Da Lat are sold in domestic markets such as in Ho Chi Minh at about 15% higher prices, showing that added value of safe food is being recognized in Vietnam. After joining the WTO, MARD has been carrying out a policy under which crop safety above the international standard is sought, while adopting ASEANGAP which is GAP (good agricultural practice) for the 10 countries of ASEAN. MARD is preparing for VIETGAP that meets the conditions of Vietnam. Interest in safe crops is, thus, expected to increase.

Vegetable farmers in Hoa Binh plant a diversity of vegetables and can supply them to the market throughout a year as vegetable producers in the suburban areas of Red River Delta Region immediately adjacent Hanoi. As for distribution, Hoa Binh is advantageous in terms of its geographical conditions with a short distance from Hanoi, i.e. only 85km. Vegetable producers and traders can transport their products to the Hai Phong port, Cai Lan port and to the China border by the highway roads. They have further potential distribution channels.

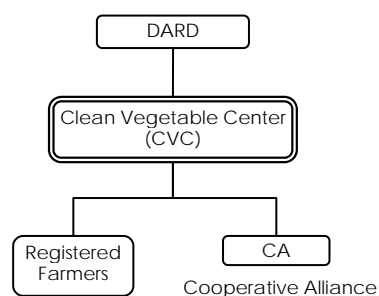
This M/P aims to establish production center for safe crops (especially vegetables) with involvement of private firms. As vegetable cultivation by organic farming methods requires more labor for farm management (e.g. weeding is much harder if without the use of chemical herbicide), thorough understanding of the meaning and significance of safe vegetable by farmers is needed for sustainable production. Unless the farmers acknowledge the increasing market needs for safe vegetables, and experience the price advantage comparable to their hard labor, the level of incentive (farmers' motivation) for production cannot be maintained. By using the above safe vegetable farm to establish production technique and give assistance in setting up market channels, public agencies should develop production and marketing of safe vegetables so that those vegetables become attractive to both consumers and farmers.

This action plan aims to establish Clean Vegetable Center (CVC) in the safe vegetable farm in order to accomplish the above-mentioned task (development of production and marketing of safe vegetables). This center is to consist of 3 units: a) technical extension, b) organic fertilizer production and c) chemical analysis. The technical extension unit is to establish and extend production technology that follows GAP. Organic fertilizer production unit is to produce organic fertilizer by using by-products of agribusiness and livestock farming and sell it. Chemical analysis unit is to certify the contents of organic fertilizer for the time being. As for the system of activity implementation, DARD of Hoa Binh and its Agricultural Extension Center are to co-manage while getting assistance from Department of Crop Production in MARD which is responsible for GAP promotion.

Project Area: Hoa Binh Province


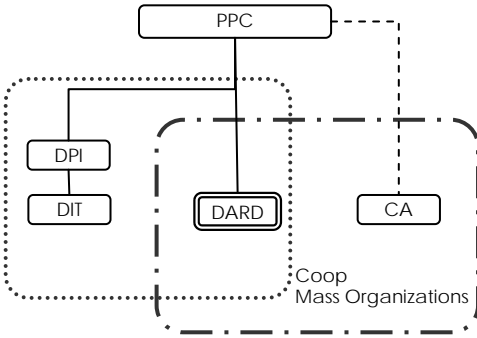


Organizations



DARD: Department of Agriculture & Rural Development
 CVC: Clean Vegetable Center
 CA: Cooperative Alliance

Project Summary									
Overall Goal		Outputs							
Production area of safe vegetable is established in Hoa Binh with participation of private firms (Hoa Binh become popular for its vegetable production with participation of private firms)		1. Clean Vegetable Center (CVC) is established							
Project Purpose		2. Appropriate technique for safe vegetable cultivation is established and demonstrated							
Production technique for safe vegetable is widely practiced by farmers and income of safe vegetable producing households is increased		3. The number of vegetable producing households using organic fertilizer increases							
Activities		Reports and Materials		Annual					
1. Formulation of plan to establish Clean Vegetable Center (CVC) and its construction				1	2	3	4	5	6
1-1 Baseline study on vegetable producing households on the outskirts of Hoa Binh.		- Baseline study report							
1-2 Visit to safe vegetable producing area in Da Lat, Lam Dong Province for observation and information exchange		- Report on visit to Da Lat							
1-3 Examination of scope of CVC establishment, and consensus building with PPC		- Meeting minute, Agreement record (document)							
1-4 Compilation of planning report on CVC establishment.		- Design document							
1-5 Construction of CVC facility and installation of equipment									
2. Extension of cultivation technique of organic vegetable (1st year)									
2-1 Formulation and implementation of production plan		- Safe vegetable production plan							
2-2 Establishment of demonstration farm, making and distribution of materials for GAP extension		- Extension material							
2-3 Registration of cooperatives and farming households with desires for organic vegetable production		- List of farming households							
2-4 Group/Joint purchase of farm inputs (seeds, agrochemical)									
2-5 Cultivation of organic vegetables in demonstration farm and by registered farming households (Record agriculture)		- Record of farm work							
2-6 Group/Joint sales of products (at CVC)		- Record of study on quality and yield							
3. Promotion to produce and use organic fertilizers and insect repellents at farming household level									
3-1 Guidance on how to prepare compost and/or manure at farming household level		- Work record							
3-2 Guidance on VAC system		- Work record							
3-3 Production and distribution of sap-vinegar, effective micro-organisms (EM)		- Work record							
3-4 Promotion of planting of neem and lemongrass as one of the insect-repellents		- Work record							
3-5 Introduction of companion plants		- Work record							
4. Experimental production and distribution of organic fertilizer by CVC									
4-1 Study on procurement of raw material and procurement		- Work record							
4-2 Experimental production of organic fertilizer		- Work record							
4-3 Experiment in the demonstration farm on organic fertilizer application		- Work record							
5. Assistance to establish market channels and promote sales									
5-1 Establishment of market channels, government campaign to popularize the northwest brand		- Posters, Pamphlets/Leaflets							
5-2 Monitoring and evaluation of activities									
Inputs									
1. Experts on		2. Equipment for Clean Vegetable Center							
1-1 Crop cultivation		2-1 Equipment for technical demonstration farm							
1-2 Community development		2-2 Processing equipment							
1-3 Plant pathology		2-3 Vehicle (loading capacity: 2 tons)							
1-4 Marketing and distribution		3. Teaching materials, Guidelines for crop cultivation, etc.							
1-5 Monitoring and evaluation		4. Cost of workshop, training, etc.							
		5. PC, AV and training equipment							
Recommendations									
1. It is essential to show farmers how to produce safe vegetables in the demonstration farm. This is because the farmers need to understand the meaning and significance of organic farming (i.e. safe food and reduction of production cost) before they are fully motivated to produce safe vegetable. Such community development approach is crucial.									
2. Multiple Cropping Center (MCC) at Chiang Mai University’s Department of Agriculture in northern Thailand is likely to be a good model for CVC. From 2003, JICA carried out a 3-year technical assistance project “The project for Appropriate Technology for Reduction of Agrochemical in Northern Thailand (ATRACT)” at Chiang Mai University. Experiences and lessons learned from this project can be utilized in effectively.									
3. In CVC, management of organic fertilizer production unit is recommended to be partially commissioned to private firms in order to utilize their know-how on the matter.									
4. Interview with MARD-affiliated agencies and marketing study are to be done thoroughly because crop selection is going to be the key component. For the time being, prospective crops include baby corn, asparagus, lettuce, petit tomato, pumpkin, white radish, shallot, garlic, red radish, sweet potato, etc.									
5. Large-scale irrigation facility is not needed. Watering by handy pot (watering can) is going to be the basic watering method. Those farming households far away from the water source should use pedal-pump (foot-operated pump).									

Sector	Food Security Improvement in the Northwest Region		
Program	Remote Area Food Crop Production Program		
Action Plan	Rice Production Improvement in Remote Areas in Hoa Binh Province		
Implementation Period	6 years		
Target / Area	Areas in Hoa Binh Province where food is not self-sufficient Priority areas are Da Bac District and Mai Chau District		
Implementation Agency	DARD	Agencies Concerned	DIT, DPI
Objectives <p>Hoa Binh Province has high population pressure on its arable land, making the average area of paddy rice field per person extremely small at 0.03 ha. In spite of such small area, the average yield of paddy rice in Hoa Binh is 5 ton/ha, a very high figure, due to its good road network, farm input and technical extension throughout the province. Hoa Binh is self-sufficient in terms of rice, the principal food. (Its rate of rice sufficiency is 95% of the national average.) In the Province, annual production of food crops including rice, maize, cassava and sweet potato has been increased. Crop diversification is also notable. The food availability in the Province is as high as 400 kg/person. The food balance within the Province is thus maintained and reached to the self-sufficiency as a whole. However, the remote areas still suffers from food shortage. Some of the districts and communes may lose their food self-sufficiency. Increased food production is utmost important issue in the Province.</p> <p>As for food crop production in Hoa Binh Province, increased production of rice, which is the staple food, should be the main target, but sustainable balance of food self-sufficiency should be sought through diversification of crops and technical consideration on maize, cassava, sweet potato, beans, etc.</p> <p>Sustainable increase of food production needs development efforts on improvement of existing cultivation methods. As measures that can be adopted immediately, cultivation methods should be changed, and the following measures should be taken 1) extension of good improved varieties, 2) extension of technique for appropriate use of agricultural inputs, 3) streamlining/rationalization of farm work and intensification of cropping system and 4) extension of appropriate farming tools. For extension of agricultural technique, agricultural extension officers, key farmers and those belonging to agricultural cooperatives, youth union, etc. are to be trained so that their technical capacity will be improved and smooth and effective system of technical transfer will be established.</p>			
Project Area: Hoa Binh Province 		Organizations  <p>PPC: Provincial People's Committee DIT: Department of Industry & Trade DPI: Department of Planning & Investment DARD: Department of Agriculture & Rural Development CA: Cooperative Alliance</p>	

Project Summary									
Overall Goal				Outputs					
Establishment of sustainable system of food security in Hoa Binh Province				1. Stable increase of rice production					
Project Purpose				2. Eradication of food-insufficient communes through increased production of food crops other than rice					
Production of major food crops is increased in a stable manner				3. Commercialization of excess products through quality improvement					
Quality of excess product for commercialization is improved									
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
1. Baseline Study for Pilot Activities									
1-1 Selection of sites by DARD		- List of selected sites							
1-2 Baseline study on assistance activities on agriculture and extension		- Baseline study report							
1-3 Review food crop cultivation technique and examination of appropriate technique		- Manual for appropriate cultivation method							
1-4 Study on farmers' organization and their activities		Pilot activity plan							
1-5 Formulation of implementation plan of pilot activities		- Letter of agreement for activity implementation							
1-6 Explanation of the plan to the people in the selected sites and consensus building									
2. Pilot activities for food self-sufficiency with rice cultivation at its center									
2-1 Training and guidance of agricultural extension staff in province and districts		- Implementation plan document							
2-1-1 Formulation of implementation plan		- Training record							
2-1-2 Training and guidance of agricultural extension officers		- Budget paper							
2-1-3 Strengthening of means of transport for agricultural extension officers, and preparation of budget for their activities		- Organization chart, documentation on staff arrangement							
2-1-4 Establishment and management of demonstration farm									
2-2 Strengthening of farmers' organizations (agricultural cooperatives) and increase of their activities		- Activity manual for cooperatives							
2-2-1 Human resource development on organization management (training and guidance program)		- Planning paper for cooperative's activities							
2-2-2 Establishment of agricultural cooperative									
2-2-3 Purchase of production materials and sales of excess products		- Design standard of paddy terrace preparation							
2-3 Measure for increased production of rice and postharvest processing									
2-3-1 Creation of paddy terraces (on a slope of less than 7-degree angle)		- Manual on paddy cultivation practices							
2-3-2 Introduction/Adoption and extension of good varieties (including strengthening of technique of state seed companies)		- Manual on organic farming							
2-3-3 Improvement of cultivation method, streamlining and intensification of cultivation system		- Manual on use of agricultural tools							
2-3-4 Introduction/Adoption and extension of organic farming									
2-3-5 Extension of appropriate farming tools (ruler for paddy transplanting, rotary weeders, paddy thrasher, etc.)		- Quality study on milled rice							
2-3-6 Improvement of paddy dryer and rice mill units (managed by cooperative)									
2-4 Measures for production increase of food crop including maize and other upland field crops		- Safe cultivation and effect of conservation of soil capability							
2-4-1 Creation of non-paddy terraces (on a slope of less than 15-degree angle)		- Distribution of first-generation hybrid seeds							
2-4-2 Introduction/Adoption and extension of good (including strengthening of technique of state seed companies)		- Rationalization of fertility management and effect of increased production							
2-4-3 Improvement of cultivation method		- Improvement of land productivity and diversification of crops							
2-4-4 Streamlining of cultivation system and intensification of upland farming (adoption of double cropping)		- Effect of improvement of labor productivity							
2-4-5 Extension of appropriate farming tools and equipment (weeding hoes, serrated sickles, grain threshers, etc.)									
3. Extension of technique for increased production of rice to other areas									
Inputs									
1. Experts on				2. Equipment					
1-1 Irrigations, Paddy cultivation				2-1 Equipment for technical demonstration farm					
1-2 Upland crop cultivation				2-2 Equipment for training and guidance of technical st					
1-3 Agricultural cooperatives				3. Teaching materials, Guidelines for crop cultivation, etc.					
1-4 Participatory development				4. Cost of workshop, training, etc.					
1-5 Monitoring and evaluation				5. PC, AV and training equipment					
Recommendations									
1. Although some farmers have been using hybrid paddy varieties from China. For the time being, measures for increased production should start with choosing appropriate varieties from ordinarily improved varieties and improving cultivation method									
2. In order to improve cultivation methods as a way to increase paddy production, existing direct-sowing method is to be changed to transplanting method. As for the existing transplanting method, planting (or crop population) density should be changed from a high (dense) one to an appropriate one. A seedling for transplanting should be a young one with 4.5 leaves (18 to20- day old). Through these measures, overall management of paddy cultivation is to be rationalized.									
3. Intensification of paddy cultivation requires improvement of infrastructure which should be carried out carefully while paying attention to the facts that investment for development tends to concentrate on paddy farming households and that cost effectiveness of the civil work and the numbers of beneficiary farmers have their limits. The geophysical features of the Northwestern Region require extremely small-scale irrigation schemes. Such schemes should be constructed through the bottom-up approach in which beneficiary households play the central role.									

Development Issue	Food Security Improvement		
Program	Animal Health and Production Improvement Program		
Action Plan	Introduction of Improved Water Buffalo Breed in Hoa Binh Province		
Duration	6 years		
Target area / group	Dairy farmer in Hoa Binh Province		
Implementation Agency	DARD	Agency Concerned	NIAH, Dairy Vietnam (Alliance of dairy farming

Background and Aim

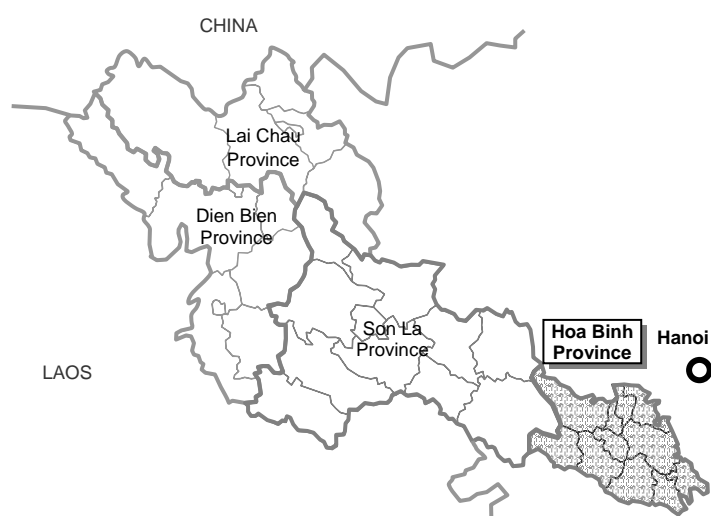
Although fresh milk production in Vietnam has been increasing in the past 10 years, milk self-sufficiency rate is only 20% (DARD, 2005). Vietnam must depend on foreign countries for milk. The Government of Vietnam reduced the custom duty of raw material milk (86/2007/QD-BTC) several times to adjust the prices of the domestic dairy products. All domestic fresh milk is used as raw material for making processed milk, so that market share of fresh milk is extremely low. Domestic dairy companies which export (mainly to Cambodia) and sell processed milk are starting to use domestic raw material milk as a cost-cutting measure.

While milk self-sufficiency rates of Southeast Asian nations excluding Thailand are low, Vietnam has a potential to become a supply base of dairy products in the Indochinese Peninsula. Being adjacent to Cambodia, Laos and China which are considered to be large commercial markets, Vietnam has sea ports where the raw material milk for recombined-milk manufacture can be imported. Under the socio-economic development strategy (2005-2010), Vietnam aims to increase a) the number of dairy cows from 113,000 (2006) to 200,000 (2010) and b) the raw milk production from 216,000 ton (2006) to 350,000 ton (2010). As a result, self-sufficiency rate is to be 40%.

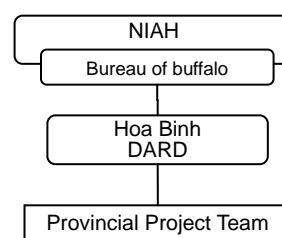
In Hoa Binh Province, cooperative-based management is carried out by dairy farmers. Moc Chau District in Son La Province, which is adjacent to Hoa Binh Province, has a one-thousand hectare (1,000 ha) collective dairy farm which received Cuban assistance in 1960s and was granted to 8 dairy-farming households. Many small-scale dairy farmers, each of whom owns 5 to 10 dairy cows, live around the collective farm. The quantity of fresh milk production in Moc Chau is about 30 tons/day. The number of dairy cows in Moc Chau is about 2,500 (2007, General Statistic Office), accounting for 4.2 % of the dairy cow population of Vietnam.

Water buffalo population in the Region account for 16% (2006, MARD) of the total population in Vietnam, but water buffaloes are not used as dairy cows. India is the 2nd largest country (2007) in terms of raw milk production. More than 50 % of raw milk produced in India comes from water buffaloes. Water buffaloes have gentle character and are easily adaptable to geographical conditions. They are immune to epidemics as well. One Muller water buffalo in India produces 1,000-2,000 kg of milk per year. Fat content of the Muller milk is higher than that of dairy cow milk (dairy cow: 3%, water buffalo 8-10%) so that Muller milk is best suited to be made into ice cream, cheese and yoghurt. Muller water buffaloes are excellent as draft animals in agricultural fields because their hoofs are big. Water buffaloes in Vietnam are of the Swamp Type which are used as draft animals in Southeast Asia. In this program, the River Type water buffaloes, which are dairy species and are widely raised in India, are to be introduced to increase the amount of milk production.

Target Area: Hoa Binh Province



Organization Chart



MARD: Ministry of Agriculture & Rural Development
 NIAR: National Institute of Animal Husbandry
 DARD: Department of Agriculture and Rural Development

Project Summary									
Overall Goal Water buffalo milk is widely used in Vietnam				Outputs 1. Dairy water buffaloes are accepted by the dairy industry 2. The milk production of the target area increases 3. New dairy products are developed 4. Income of dairy farming household increases					
Project Purpose Dairy products made from milk of multi-tolerant water buffalo increase									
Activities		Reports and Materials		Year					
				1	2	3	4	5	6
1.Service preparation to use dairy buffalo for milking									
1-1 Organizing a team to examine the use of dairy water buffalo									
1-1-1 Establishment of dairy water buffalo section in NIAH		- Database							
1-1-2 Examination of breeding environment, and selection of model areas		- Database							
1-1-3 Development of breeding technique		- Guideline							
1-1-4 Storage and management of frozen semen		- management record							
1-1-5 Dispatching team members for technical training in 3rd country.		- Training record							
1-1-6 Import of seed/breeding water buffaloes		- Maintenance & management record							
1-1-7 Selection of breeding male water buffaloes		- Maintenance & management record							
1-2 Training of training instructor									
1-2-1 Training on participatory development method		- Training record							
1-2-2 Training on breeding management technique		- Training record							
1-3 Guidance to dairy farmers									
1-3-1 Explanation of dairy water buffalo farming		- Lecture							
1-3-2 Training of the breeding management technique		- Training record							
1-3-3 Compilation of manual on improved management technique		- Equipment set							
2.Support to farmers									
2-1 Training of dairy water buffalo farmers									
2-1-1 Organizing farmers, and management by the farmers		- List on organization							
2-1-2 Compilation of a guideline on activities and management		- Guideline							
2-1-3 Lending of a milk analysis kit to the association		- Equipment							
2-2 Support to product development									
2-2-1 Market research		- Research Report							
2-2-2 Training on processed food development		- Manual							
2-3 Support by local government									
2-3-1 Introduction of activities to private firms, and enticement for investment		- Operational report by MARD							
Input									
1. Experts		2. Equipment and Materials							
1-1 Animal breeding expert		2-1 Artificial Insemination equipment							
1-2 Animal genetic expert		2-2 Milk component analyzer							
1-3 Food processing expert		2-3 Food processing machine							
		3. Cost for workshop, training, etc.							
		4. Manual and teaching materials							
		5. Training in overseas							
Points of Concern for Implementation									
1. Few ethnic minority farmers practice dairy farming. Dairy water buffalo farming technique should be extended to remote areas.									
2. Currently, water buffaloes are mainly for meat production. Water buffalo milk is not sold. Promotion of water buffalo milk as raw material for dairy product is needed.									
3. Project should examine adoption of new species with the concerned agencies.									
4. Overseas training may be carried out in the Philippines because they had a project to extend water buffaloes from India.									

Sector	Food Security Improvement in the Northwestern Region		
Program	Inland Fisheries Supporting Program		
Action Plan	Fishery Resource Management in the Hoa Binh Dam Reservoir		
Implementation Period	3 years		
Target / Area	Fishermen along the coast of Hoa Binh Reservoir (Da Bac, Tan Lac, Cao Phong, Mai Chau districts)		
Implementation Agency	Fisheries department, DARD	Agencies Concerned	Farmer's union, Women's union

Objectives

Hoa Binh dam was constructed on the Da River in 1990s, which is a multi purpose dam to control flood and to create electricity. The average water depth of the reservoir is 60 m (maximum 120 m) and total water stock area 208 km². Along the coast of the reservoir, resettlement peoples continue to have their livelihood based on fisheries and agriculture. However, their lands are too small to harvest enough products and those peoples became to have difficulty in manipulating water of the Da River.

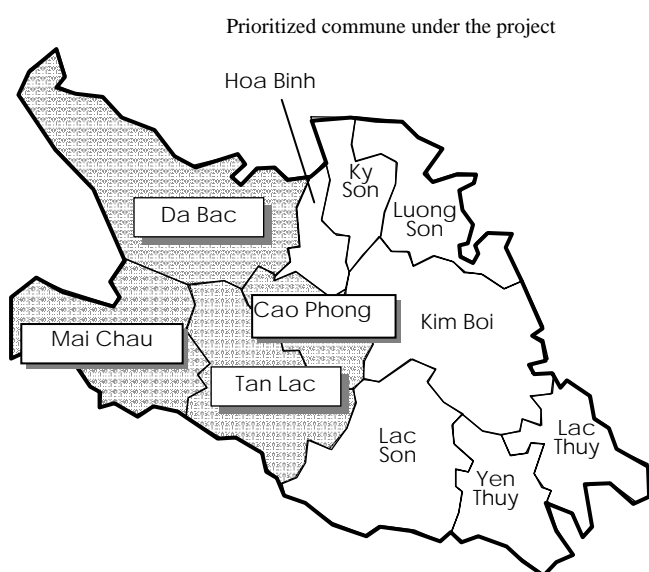
There are plenty of fishermen living along the coast of the reservoir to catch carps, catfishes and snakeheads inhabiting the reservoir. There are some concern about the fisheries in the reservoir. Firstly the number of fishermen is now increasing. Secondly due to the lack of any fisheries management, there are found many illegal fisheries such as dynamite fishing, electric fishing and cyanide fishing. Moreover, the water level of the reservoir is fluctuated between wet and dry seasons, which range 40 m. Therefore, it is difficult for the fishermen along the coast of reservoir to build houses on the coast and barely adapt to the change of water level. It might be keen to improve the livelihood of fishermen.

Regarding the problems above, the DANIDA is establishing the fisheries management plan through the SCRFA (Strengthening of Capture Fisheries) project. It is expected that the fisheries resources are accurately estimated and relevant guideline for capture fisheries is demonstrated quickly by this project. More concretely, various options, catch management (prohibition of time, prohibition of areas, limit of mesh size, TAC), environment management and market management are adopted and at the same time capacity building of fisheries officers to strengthen the surveillance system of fisheries resources and program to train and enlighten the fishermen are implemented.

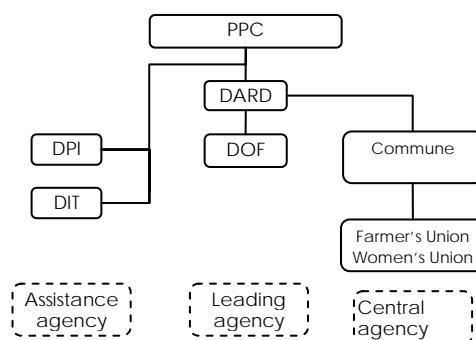
In this action plan in order to establish the fisheries management plan in the Hoa Binh reservoir, actual activity will be started jointly with the SCRFA after the detailed study of the physical and biological condition of the reservoir. Initially, the base line survey including the estimation of the fisheries resources will be conducted to create fisheries master plan to sustain the condition of the ecosystem as well as fisheries resources. Subsequently, the various programs to train and enlighten the fishermen will be implemented to refrain from overfishing and illegal fishing and to determine the sustainable catch level

It might be probable that the income of fishermen is decreased due to the strengthening of fisheries management and prohibition of illegal fishing. The stability of the livelihoods and increase of income of fishermen will not be achieved only by fisheries activity. Therefore, this pilot project should be coupled to handicraft and sub income program (3.2) and sightseeing village and green tourism program (3.3) to generate income of fishermen.

Project Area: Hoa Binh Province



Organizations



DARD: Department of Agriculture & Rural Development
 DOF: Department of Fisheries
 DPI: Department of Planning & Investment

Project Summary								
Overall Goal		Outputs						
Inland capture fisheries of the Hoa Binh province is developed.		1. Amount of the fisheries resources in the reservoir is estimated.						
Project Purpose		2. Techniques and knowledge for the fisheries management of fisheries officer is enhanced.						
Fisheries resources of the Hoa Binh Reservoir is correctly managed and the sustainable fisheries is realized.		3. Fisheries management plan in the reservoir is established						
Poverty of the fishermen along the coast of the reservoir is reduced.		4. Correct fisheries technology is introduced and widely used.						
		5. Income of fishermen is diversified.						
		6. Environmental management plan of the reservoir is established.						
Activities	Reports and Materials	Annual						
		1	2	3	4	5	6	
1. Survey of the fisheries resources in the reservoir								
1-1 Determination of target fishes and survey of their biology	- Survey report							
1-2 Survey of total primary production of the reservoir	- Baseline survey report							
1-3 Water quality survey, geographic characters survey	- Survey report							
1-4 Number of fishermen, their livelihoods, fishing methods etc	- Survey report							
1-5 Fisheries regulation (protected area, license)	- Baseline survey report							
1-6 Establishment of correct database system of catch amount	- Annual plan							
2.Capacity building of the fisheries officers								
2-1 Seminar for fisheries management	- Seminar report							
2-2 Review of the SCRFA project	- Review report							
2-3 Capacity building for extension service	- list of officers above mark							
2-4 Completion of the scheme for monitoring survey	- Tools for monitoring survey							
3. Establishment of fisheries management								
3-1 Implementation of the guideline for adaptive management	- Guideline							
3-2 prohibition of season, area and avoidance of illegal fishing	- Campaign, posters							
3-3 Preparation of pamphlet for recommended fishing methods	- Pamphlet							
3-4 Improvement of fishing gears	- Model of fishing gears							
4.Enlightenment and training for fishermen								
4-1 Formation of consensus	- Minutes of meeting							
4-2 Seminar and training for fisheries technology	- Record of seminar and lesson							
4-3 Establishment of fishermen's union and creating monitoring system	- Statistics data							
4-4 distribution of relevant fishing gears	- List of fishermen							
5. Pilot project to guide the diversification of income								
5-1 Support for prohibition season (improvement of agriculture)	- Manual							
5-2 Establishment of side job to manipulate water grass (for livestock and handicraft)	- Manual							
5-3 Implementation of green tourism	- Pleasure boat, game fish gear							
Inputs								
1. Experts on		2.Facility and equipment of pilot project						
1-1 Fisheries		2-1 Fishing gears						
1-2 Environment conservation		2-2 Training text and advertisement						
1-3 Social development		3. Workshop and training						
1-4 Participatory approach		4. Text for fisheries management						
1-5 Evaluation and monitoring		5. PC, AV and training equipment						
Recommendations								
1. In the capture fisheries based on the relevant fisheries management, fishes of various trophic levels will be harvested which in turn may contribute much to the sustainable fisheries. For the government, sustainable capture fisheries might be more cost effective and more sustainable than aquaculture and seeds release activity. This project is highly required in terms of its sustainability, cost effectiveness and strong influence on the future fisheries of other provinces.								
2. Target fishes under the capture fisheries should be selected after the literature and field surveys. The biological data of those fishes (age, growth, longevity, reproduction , maturity, food habits, trophic level etc.) should be studied in detail and may reflect the fisheries management plan.								
3. Regulation for fishing methods should be carefully implemented since the biology of fishes vary even in the limited areas. Especially, the fisheries targeting only the carnivorous fishes should be well regulated.								
4. The effect of the project will become more strong when the local peoples are firmly organized under the fishermen's union and other relevant agencies. It might be important to formulate good central body which is responsible for this project. It might be necessary to support the fishermen's union by various options to let the union conduct economic activity other than fisheries.								
5. The establishment of the Son La dam in 2012 may have some impacts to the condition of the environment and fisheries resources of the Hoa Binh reservoir. It is necessary to monitor the fisheries resources of the Hoa Binh reservoir after the completion of the Son La dam in 2012.								

Sector	Local Revitalization and Diversification of Income Sources		
Program	Non-Timber Forest Products (NTFPs) Promotion Program		
Action Plan	Promotion of Multi-Purpose Trees and Medicinal Plants in Hoa Binh Province		
Implementation Period	6 years		
Target / Area	Cao Phong district, Đà Bắc district, Lạc Sơn district and Mai Châu district. DARD and district officials engaged in NTFP and Cooperatives engaged in production/processing of NTFP		
Implementation Agency	DARD (Sub-DOF)	Agencies Concerned	NTFP Research Center, Cooperative Alliance (CA), etc.

Objectives

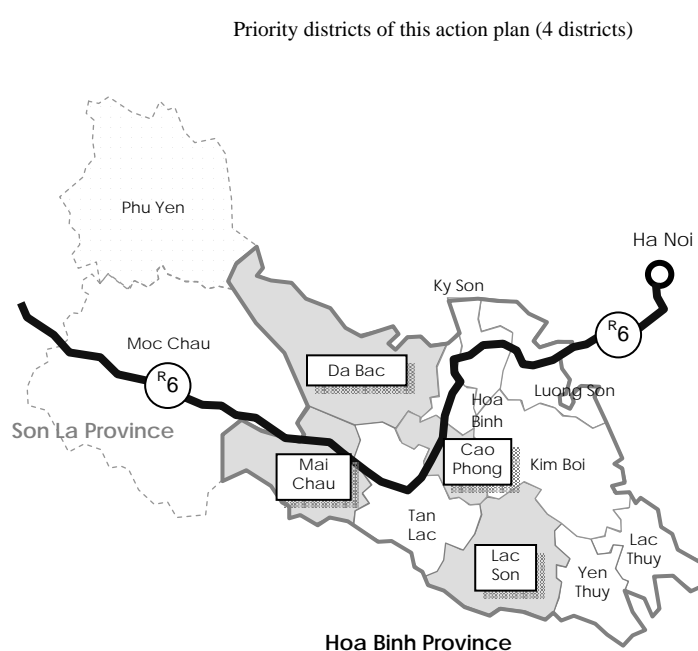
Main NTFPs produced in Hoa Binh province are bamboos, rattans and tiger grass (chit). Bamboos are to be used not only as foodstuff but as raw materials for construction, handicrafts, paper making. Bamboos / rattans are to be transported to other provinces, such as Ha Tay, as for raw materials for handicraft making and bamboos are to be utilized as bamboo pulps at bamboo mills in Hoa Binh province. Production volume of other NTFPs, which are cultivated in the farmlands and collected from the protection forests, are not so high enough to export to outside of the region but enough to consume inside the region/province. According to the results of experimental planting of multi-purpose trees and medicinal plants/herbs by RENFODA project, which are being conducted by JICA in Hoa Binh province (scheduled to be end by September, 2008), some new NTFPs would be introduced into the Northwestern region.

According to the current production of NTFPs in Hoa Binh province and results of the aforementioned RENFODA project, assistances for those activities, such as 1) Grasping resource volume of NTFPs, 2) Improving production techniques, 3) Improving processing techniques, 4) Opening up new markets, and 5) Establishing cooperatives, will be conducted for the following NTFPs in the districts of Cao Phong, Đà Bắc, Lạc Sơn and Mai Châu.

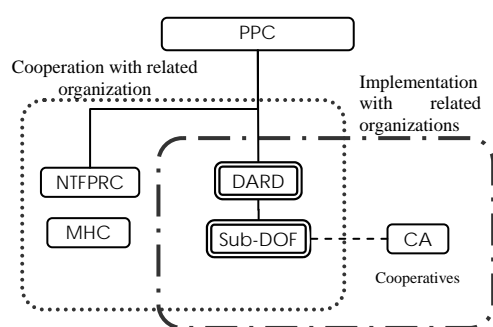
- Bamboo (Tre nứa, luồng): Đà Bắc, Lạc Sơn and Mai Châu districts
- Rattan (Song, mây): Đà Bắc, Lạc Sơn and Mai Châu districts
- Staff vine (Xà đen): Cao Phong district
- Agarwood (Trầm Hương): Đà Bắc district

In term of 6) Introducing new kinds of NTFPs, introduction of multi-purpose tree species, such as Sấu and Trám (Trám chim, Trám trắng, Trám đen) and medicinal plants, such as Talauma Giỏi and Ba Kích will be considered.

Project Area: Hoa Binh Province



Organizations



PPC: Provincial People's Committee
DARD: Department of Agriculture & Rural Development
Sub-DOF: Sub-Department of Forestry of DARD
NTFPRC: NTFP Research Center in FSIV
MHC: Ministry of Healthcare
CA: Cooperative Alliance

Project Summary						
Overall Goal Income sources of farmers will be diversified and increased. Products which utilize the domestic resources in the Northwester region will be increased.			Outputs 1. Standing stock and production volume of NTFP products will be grasped. 2. Stable production of NTFP products will be conducted. 3. Processing of NTFP will be conducted and market of NTFPs will be diversified. 4. NTFP Cooperative Alliances will be organized. 5. Knowledge / techniques of staff will be improved by the trainings on NTFP. 6. New kinds of NTFPs will be introduced.			
Project Purpose NTFP-related industries will be developed in the target areas. New kinds of NTFPs will be developed and produced in the target areas.						
Activities		Reports and Materials	Annual			
			1	2	3	4
[1. Grasp of Resource Volume of NTFPs] 1-1 Grasp of standing stock of NTFPs 1-1-1 Assistance for grasping of standing stock and used volume of NTFPs 1-2 Monitoring on grasping of NTFP resource volume 1-2-1 Monitoring on grasping of NTFP resource volume [2. Promotion of NTFP production] 2-1 Production of seedlings 2-1-1 Securement / development of NTFP species suitable for Hoa Binh province 2-1-2 Construction / expansion of nurseries for seedlings 2-1-3 Production of seedlings 2-1-4 Securement of production areas/plantation areas 2-1-5 Planting of seedlings 2-2 Production/storage of raw materials of NTFPs 2-2-1 Management/tending of existing production areas 2-2-2 Management and tending of planting areas 2-2-3 Trainings on production/storage techniques at existing production areas 2-2-4 Trainings on production/storage techniques at new production areas 2-2-5 Site visits to the advanced areas 2-3 Monitoring on promotion of NTFP production 2-3-1 Monitoring on promotion of NTFP production [3. Processing of NTFPs and Marketing] 3-1 Improvement of processing techniques of NTFPs 3-1-1 Grasping of existing processing techniques of NTFPs 3-1-2 Renovating of existing processing techniques of NTFPs 3-1-3 Development of new processing techniques of NTFPs 3-1-4 Renovation/Construction of processing facilities of NTFPs 3-1-5 Site visits to the advanced areas 3-2 Diversifying of market of NTFPs 3-2-1 Grasping of current market of NTFPs 3-2-2 Opening up of new market of NTFPs 3-2-3 Networking with domestic / overseas companies 3-2-4 Site visit to the advanced areas 3-3 Monitoring on improvement of processing techniques and opening-up of new market 3-3-1 Monitoring on improvement of processing and opening-up of new market [4. Establishing cooperatives for production, processing and marketing of NTFPs] 4-1 Establishing cooperatives for production, processing and marketing of NTFPs 4-1-1 Extension / enlightening of necessity of cooperatives 4-1-2 establishing the new organization set-up 4-2 Securing coherences with regulations on NTFP 4-2-1 Grasping the current legal systems on NTFP 4-2-2 Recommendations on new legal systems on NTFP 4-3 Monitoring on establishing cooperatives on NTFP 4-3-1 Monitoring on establishing cooperatives on NTFP [5. Capacity development of official staffs in Hoa Binh province] 5-1 Trainers' trainings for technical extension 5-1-1 Technical training on grasping standing stock / used volume 5-1-2 technical training on seedling production 5-1-3 Technical training on production management of raw materials 5-1-4 Technical training on processing 5-1-5 Technical training on marketing [6. Introduction of new kinds of NTFPs] 6-1 Examination of new NTFPs, including market researches 6-2 Production of new kinds of NTFPs, including seedling production, plantation, tending 6-3 Processing of New kinds of NTFPs 6-4 Opening-up of new market on new kinds of NTFPs						
Inputs 1. Experts on 1-1 I Social development 1-2 Product processing/Food processing 1-3 Forestry/NTFPs 1-4 Marketing 1-5 Organization set-up 1-6 Training planning 1-7 Specific NTFPs (short-term) 2. Production materials 2-1 Materials for plantation 2-2 Materials for seedling production 2-3 Storage/processing of NTFPs 3. Facilities (including temporary facilities) 3-1 Nurseries 3-2 NTFP processing facilities 4. Other materials 4-1 Research for existing volume of NTFPs 5. Manuals/guidelines 6. Personal computers						
Recommendations 1. Cooperation with related authorities/organizations should be considered for integrated assistance. 2. Promotion of local NTFP species and introduction of new NTFP species should be conducted to diversify kinds of NTFPs. Participatory methods should be promoted to conduct projects, as consensus building and independence of residents are necessary for sustainable resource management. 3. Producers-oriented production activities should be promoted by means of establishment of corporative, strengthening of existing organizations and human resources, and strengthening of relationships with clients. 4. Adequate assistances, such as dispatching individual experts for each NTFP species, on the basis of experts' judgment, as different methods be applied to each NTFP species on cultivation, tending and processing. 5. Coherence with National Plan on Non-Timber Forest Product (NTFP) Development and Conservation (2005-2020) and results of RENFODA project should be considered.						

Sector	Local Revitalization and Diversification of Income Sources		
Program	Handicraft and Cottage Industry Promotion Program		
Action Plan	Roadside Stations Sales Promotion Campaign in Hoa Binh Province		
Implementation Period	6 years (Phase 1: Pilot Project Phase 2: Extension over the Whole Area)		
Target / Area	Hoa Binh Province; whole area (local industry that produces handicrafts and processed food)		
Implementation Agency	DARD, DIT	Agencies Concerned	Cooperative Alliance, Agricultural Extension Center, Etc.

Objectives

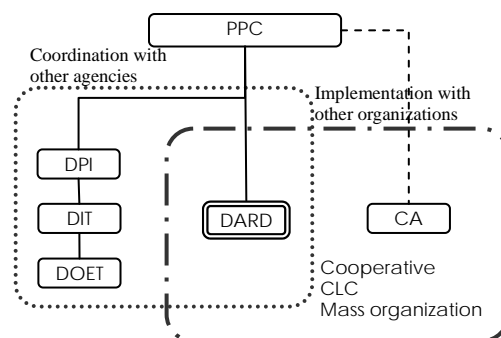
This action plan consists of Phase I and Phase II, and carries out a pilot activity in which the existing businesses and organizations such as cooperatives and mass organizations serve as entry points. The focus of this action plan is capacity development of local government officers and technical extension officers.

“The Study for Roadside Stations Master Plan” is undergoing in Hoa Binh Province. In the Master Plan roadside stations are to be constructed in the pilot project areas. This program on sales promotion at roadside stations aims to give assistance to activities that make use of marketing centers. In Phase I, advices on marketing with demonstration in roadside stations are to be given to the existing local businesses near the roadside stations, and assistance to sales promotion is also to be given. These advices and assistance are to increase their sales volumes. In Phase II, assistance to strengthen the system of production and PR activities are to be provided with a view of markets outside the Northwest Region (including Hanoi, international trade, overseas).

Project Area: Hoa Binh Province



Organizations



PPC: Provincial People's Committee
 DARD: Department of Agriculture & Rural Development
 DPI: Department of Planning & Investment
 DIT: Department of Industry & Trade
 DOET: Department of Education & Training
 CA: Cooperative Alliance

Project Summary								
Overall Goal			Outputs					
Cash income sources of farming households are diversified and cash income is increased Specialty products of the Northwest Region are increased			1. TOT is conducted to develop capacity of local government officers on production assistance and marketing promotion and to reinforce local government services					
Project Purpose			2. Sales promotion of specialty products is strengthened					
Local industries in the program areas are developed Specialty products of the program areas are developed and produced			3. Production activities of businesses and organizations (cooperatives, etc.) are enhanced					
			4. Model business of specialty products is carried out to expand market channels					
Activities		Reports and Materials	Annual					
			1	2	3	4	5	6
【Capacity development of provincial staff in Hoa Binh】								
1. Training of instructors for technical extension								
1-1 Capacity development on planning (workshop for local people)		- Instruction manual						
1-2 Assistance to marketing (direct from the producers)		- Data file on markets						
1-3 Establishment of local network for sales promotion		- List of customers						
【Sales promotion through the use of Roadside Stations in Hoa Binh Province】								
2. Marketing, promotion activities, improvement of business skills								
2-1 Analysis of market of processed food, handicrafts, etc., information collection		- Database						
2-2 Training to promote marketing/sales (guidance on customer service, accounting, foreign languages, PC operation)		- Manual, teaching material						
2-3 Improvement of marketing environment (Internet, observation tours, etc.)		- HP, extension of PC and Internet						
2-4 Product fair/show and gathering for food-tasting to promote sales		- Product fair/show, gathering for food tasting						
2-5 Campaign at sales centers		- Sales in special events						
3. Establishment of industry cluster for product development								
3-1 Study and research to establish system of product labeling		- Examination of logo , tags, etc.						
3-2 Development of specialty product by local government, private business and farming households on contract		- Establishment of place to develop ideas						
3-3 2Establishment of system of division of production and packaging		- Development of packaging for specialty products						
4. Sales promotion to expand market channels								
4-1 Establishment of network among different industries and overseas businesses		- Network						
4-2 Meeting with foreign businesses to establish marketing channels		- Sales activities						
4-3 Study tour to the advanced region		- Training						
4-4 Sales promotion to tourists		- PR of sales products						
5. Extension of activity model to other areas								
5-1 Introduction of models, and visit to the area		- Workshop, Visit/observation						
5-2 Establishment of industrial cluster, product development, and technical guidance		- Specialty products						
5-3 Training to promote marketing/sales (Guidance on customer service, accounting, foreign languages, PC operation)		- Manual, teaching material						
5-4 Improvement of marketing environment in community (internet, study tour, etc.)		- HP, extension of PC and internet						
5-5 Product fair/show and gathering for food tasting/sampling to promote sales		- Product fair/show, gathering for food tasting						
5-6 Conducting meeting to bring in private businesses to the area		- Introduction of private capital						
Inputs								
1. Experts on			2. Equipment for production					
1-1 Social development			2-1 Equipment and material for textile weaving					
1-2 Agricultural and food processing			3. Packaging machine (Vacuum packing machine, Machine to print label and manufactured date)					
1-3 Handicrafts, etc.			4. Manual and teaching material					
1-4 Agricultural products, food processing, handicrafts, etc.			5. PC, Internet equipment					
1-5 Marketing and distribution, Designing			6. Cost for training and observation					
1-6 System of intellectual property								
Recommendations								
1. Project implementation agencies should coordinate with the relevant departments and organizations so that comprehensive assistance will be provided								
2. For product diversification, project implementation agencies should try to adopt and extend new production method which uses locally-available materials.								
3. Through organizational strengthening and human resource development, project implementation agencies should encourage cooperatives to carry out production activities with business mind								
4. As each product and activity requires a different method of assistance, appropriate assistance is to be given based on experts' judgment.								
5. Project implementation agencies should coordinate with tourism industry is to create opportunities for the local people to start business.								

Sector	Local Revitalization and Diversification of Income Sources		
Program	Rural Tourism Program		
Action Plan	Tourism Village Promotion in Hoa Binh Province		
Implementation Period	3 years		
Target / Area	Staff of Department of Culture, Residents of Mai Chau Districts, Kim Boi Districts, and Da Bac Districts		
Implementation Agency	Department of Culture, Sports and Tourism (DCST),	Agencies Concerned	DPI, Department of Commerce and Industry, DARD, Cooperative Alliance, etc.

Objectives

Under the restructuring of the Vietnamese government, the tourism sector of the Ministry of Trade and Tourism was transferred to the Ministry of Culture and Sports in August 2007. As a result, Department of Culture, Sports and Tourism (DCST) under the PPC became the responsible organization for tourism development at the provincial level. DCST is not fully developed in its administrative and management capacity on tourism. This action plan carries out a pilot activity on tourism development in each of the 4 provinces of the Northwest Region while focusing on organizational strengthening of DCST. This action plan is to pay special attention to smooth transfer of know-how owned by Department of Trade and Industry (DTI), which has experience with the study on national tourism master plan (2004), to DCST. As for PR activities on tourism, promotions are to be carried out not by each province, but by the Northwest Region to publicize the whole area.

Hoa Binh Province enjoys good transport access as it takes only 1.5 hours to get there from Hanoi by car. Mai Chau District, famous for its tourism villages, serves as a success model of green tourism in which tourists visit villages of ethnic minorities. Local government officers from other areas visit the district to study and learn tourism by observing Hoa Binh Tourism Company (former state enterprise), public guest houses, etc. Hoa Binh Province has other tourism spots including a) power (generation) facility at the Hoa Binh Dam, b) the Ba Khan islands on the dam reservoir, c) Ba Vi and Cuc Phuong national parks, and d) Pa Co-Hang Kia, Thuong Tien, and Suoi Ngoc forest-nature reserves. Efforts to bring in more tourists to these facilities are to be expected.

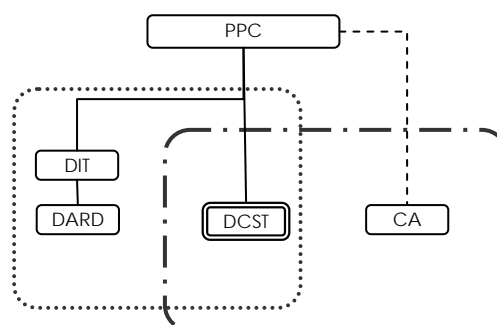
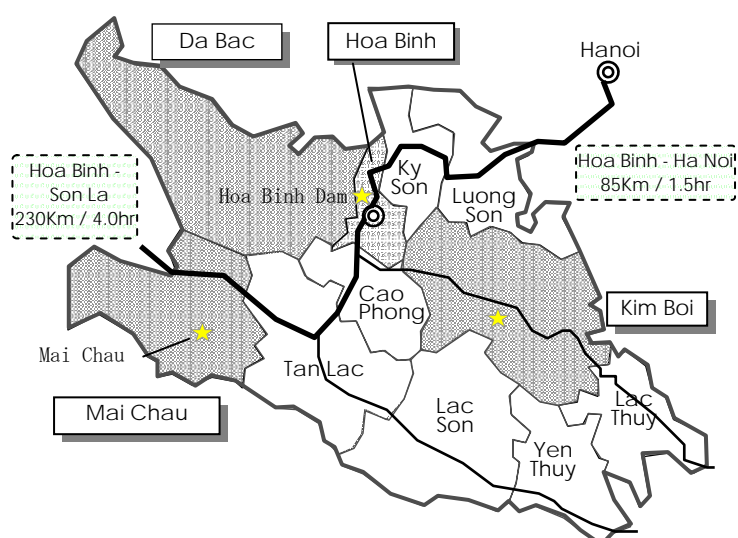
As the province had received assistance on green tourism by international donors and NGOs, it accumulated know-how on tourism village development to some extent. Improvement of management capacity is needed to make the best use of the know-how and expand the tourism development in the province. Control/regulation on natural environment and sceneries, and improved legal systems is also needed to maintain the value of tourism resources in the province and carry out sustainable tourism promotion.

New breed of tourism needs to be proposed which includes sport fishing, basking in the woods, agricultural experience in orchards and livestock farms, etc. In coordination with the Handicraft and Cottage Industry Promotion Program, tourism villages where people can experience textile weaving and pottery making are to be set up while posh handicraft products with the motif of traditional patterns of ethnic minority groups are to be developed. At the same time, opportunities for the local residents to break into tourism industry are to be created including opening of restaurants for local cuisine and souvenir shops. Activities that deepen tourists' understanding of ethnic minorities in the area and contribute to preservation of their traditional cultures are to be included. Construction of hotels and restaurants to meet the demand of growing number of tourists is needed in the future while improvement of business conditions to promote/bring in investment from outside the province is also needed.

Project Area: Hoa Binh Province

Organizations

Priority districts of this action plan (1 town 3 districts)



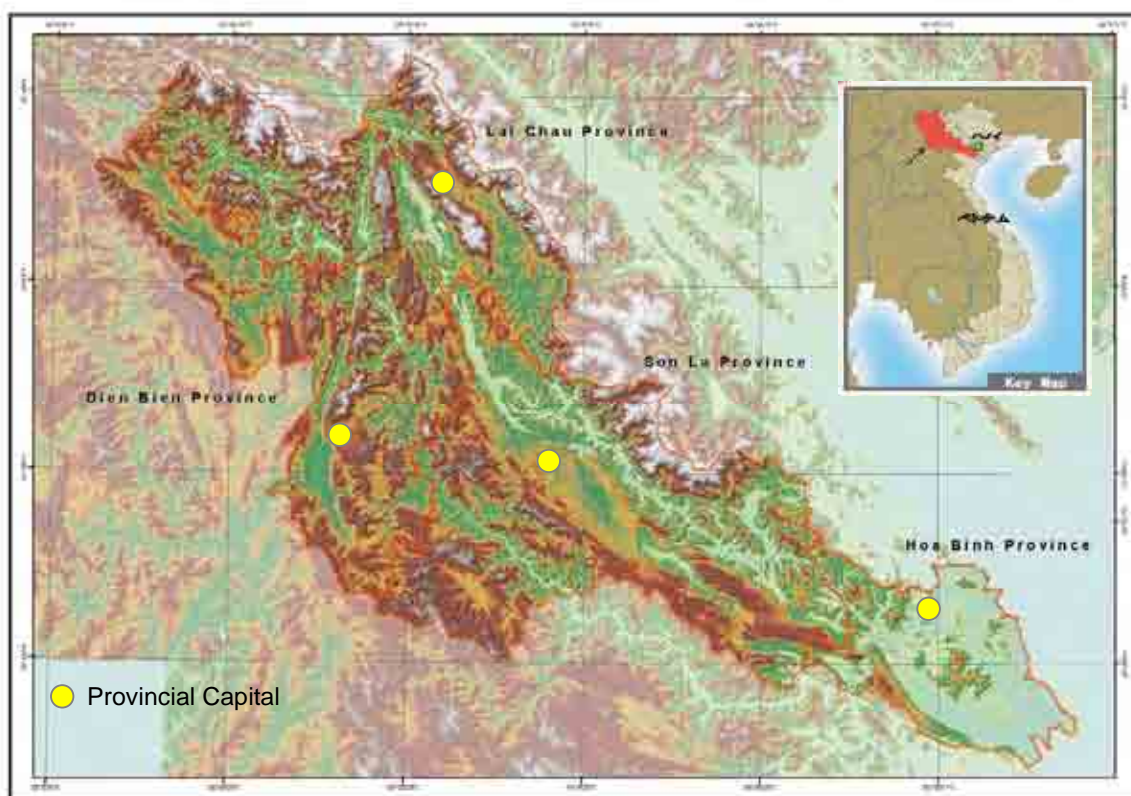
DCST: Department of Culture, Sports and Tourism
DIT: Department of Industry & Trade
DARD: Department of Agriculture & Rural Development
CA: Cooperative Alliance

Project Summary									
Overall Goal		Outputs							
While the tourism in the Northwest Region is activated, income sources of farming households are diversified with increased income.		1. Capacity of DCST on tourism development is improved							
		2. Rural tourism and green tourism are carried out (pilot activities)							
Project Purpose		3. Marketing targeting tourists is carried out							
Tourism is activated in the Program target areas.		4. Tourism in the Northwest Region is promoted							
The number of tourists in the Program target areas is increased.		5. PPP schemes to develop tourism infrastructure are examined							
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
1. Capacity development of DCST staff									
1-1 Setting up guidelines on rural tourism development		- Guidelines for provinces							
1-2 Collection of data on tourism development in the province		- Report of basic study							
1-3 Capacity development on rural tourism through participation of local residents		- Training record							
1-4 Strengthening of cooperation with other agencies (DCI, DOT, DARD)		- Minute of consultation meeting							
2. Human resource development on rural tourism and green tourism									
2-1 Explanation meeting on rural tourism, and awareness study through workshop		- Workshop record							
2-2 Selection of target area, and consensus building among the local residents concerning implementation									
2-3 Language lessons (English, Vietnamese)		- Language lesson							
2-4 Guidance on management of guest houses, restaurants, etc.		- Manual, teaching material							
2-5 Establishment of organization to start business on ethnic cuisine, performing arts, etc., and training		- Manual, teaching material							
2-6 Training of guides for green tourism		- Lecture/Training, Manual							
3. Marketing of rural tourism (feedback to other programs)									
3-1 Creation of questionnaires for tourists		- Questionnaire							
3-2 Study meeting of producers of handicraft and processed food		- Record of study meeting							
3-3 Establishment of opinion/suggestion boxes (tourism village, hotel, restaurant, airport)		- Opinion/suggestion box							
3-4 Holding of spot sales and gathering for food tasting		- Campaign, posters							
4. Tourism promotion									
4-1 Creation of information ads, pamphlets and tourism maps		- Pamphlets							
4-3 Product fair/show and gathering for food tasting to promote sales		- Campaign							
4-4 Holding of events under the theme of ethnic cultures		- Events							
4-5 Establishment of information/explanation boards		- Information boards for tourism							
5. Improvement of infrastructure to promote tourism									
5-1 Examination to run buses that follow a circular route among tourist destinations		- Guidelines							
5-2 Explanation and study meetings on PPP schemes targeting businesses/enterprises		- Study meeting							
5-3 Training/Courses on PPP scheme		- Visit for observation							
Inputs									
1. Experts on				2. Equipment and material for pilot activities					
1-1 Tourism				2-1 Equipment for infrastructure improvement					
1-2 Social development				3. Cost for workshop and training					
1-3 Socio-economy.				4. Teaching material, guidelines on crop cultivation					
1-4 Handicrafts and food processing									
1-5 Marketing and distribution									
Recommendations									
1. Monitoring of local residents' awareness and willingness, and sensitization of local residents are needed for development of rural tourism. Consensus building and active participation of the residents are also needed. For these activities, promotion of participatory methods is to be done.									
2. Development of agro-rural tourism based on natural environment and unique cultures of ethnic minorities is to be done. Linkages with the primary industry are to be strengthened.									
3. Development of specialty and local products is to be the key to success of rural tourism development: dairy food (soft ice-cream, yoghurt), processed meat and fish (ham, sausage, smoked food), alcoholic beverage (beer, wine)									
4. Coordination with the related departments and agencies as well other provinces is needed to carry out comprehensive PR of the Northwest Region									
5. PPP schemes should have a system in which new activities on accommodation facilities, tourist farms, tourist centers, tourism information boards, etc. can be proposed. Integrated assistance is to be provided.									

11.7 Action Plan for Northwestern Region

Northwestern Region

Regional Master Plan Programs
Action Plans(2010-2015)



Sector	Master Plan Programs	Action Plan	Page
Regional Master Plan			
2.Food Security Improvement	2.2 Animal Health and Production Improvement Program	AP2.2 Animal Health Control	11-110
4.Environmental Conservation and Biomass Energy Development	4.1 Da River Watershed Management Program	AP4.1 Afforestation with Rubber and Other Useful Trees and Agroforestry Promotion	11-112
	4.2 Natural Forest Conservation Program	AP4.2 Management of Special-Use Forests and Establishment of New Nature Reserves	11-114
	4.3 Biomass Energy Promotion Program	AP4.3 Introduction of Biomass Energy Production	11-116
5.Irrigation and Water Supply Development	5.1 Water User Organization Strengthening Program	AP5.1 Water Use's Organization (WUO) Strengthening Pilot Project	11-118
	5.2 Mountain Stream Water Use Program	AP5.2 Mountain Stream Multipurpose Use Pilot Project	11-120
6. Rural Road Development	6.1 Rural Road Maintenance Program	AP6.1 Rural Road Operation and Maintenance Pilot Project	11-122
7.Rural Electrification	7.1 Renewable Energy Development Program	AP7.1 Renewable Energy Development Pilot Project	11-124
8.Capacity Building	8.1 Provincial Staff Training for 5 Year Plan Preparation	AP8.1 Formulation of 5-Year Agriculture and Rural Development Plan	11-126
	8.2 Rural Information Database Establishment Program	AP8.2 Northwestern Region GIS Establishment Project	11-128

Action Plans for the Northwestern Region

1. Basic Principles of Action Plan Selection

The area of Northwestern Region is 37,000 km², spreading from the Vietnam's borders with China and Laos to the Hanoi economic zone. The region consists of 4 provinces under similar natural conditions. More than 40% of the regional economy relies on agriculture. Over 80% of the total population of 2.65 million can be divided into 23 minority ethnic groups who make their living from agriculture. Reliance on agriculture for livelihood and household economy may be more than what various statistics indicate.

Industrialization, which is one of the objectives of the national economy targeting 2020, is greatly hoped for in Vietnam. However, economy of the region is likely to continue to rely on agriculture for some time. Based on the observation of structure of industry and past trend, large expansion of commerce and industry (the secondary industry), and service industry (the tertiary industry) in a short time is very likely to be difficult.

The National Road No. 6 is the major road in the Region, which runs along the Da River in the northwest-southeast direction, connecting Hanoi and the national border. Flows of people, goods and information within the region rely on this road. If the Northwestern Region is considered as an area whose axis of development is the National Road No. 6, and regional resources are reviewed with specific aims and strategies, common tasks for regional development become clear. The M/P focuses on such common issues that cut across the local government boundaries. These issues are put together and made into 5 development issues-7 programs. The programs are likely to be more efficient and effective because each common issue is not handled independently by each province, but handled in unified manner across the region.

In the M/P, programs that remove factors of impediment to development and satisfy development needs are not listed. Various development projects are already taking place in Vietnam, including Program 135 which is a nation-wide poverty reduction program and 5-Million Hectare Reforestation Program which is an environmental and forest conservation program. This M/P tries not to overlap with these on-going programs. Instead, it tries to coordinate and supplement those programs. Programs based on new concepts with awareness on regional visions are proposed as well.

2. Action Plans Proposed

Region-wide environmental conservation

Action plans are proposed to promote a) conservation of Da River watershed, b) development of biomass energy and c) conservation of special-use forests. These three are essential items of development prioritized by the M/P.

Forestation and agroforestry are urgently needed to increase the income of local farming households and conserve Da River watershed (reduction of flow of soil and sand into the Hoa Binh Dam and the Son La

Dam). Lately, China's import of natural rubber has been increasing, which is positively affecting the Region. Rubber tree planting is expected to bring large effect in terms of promotion of agribusiness and border trade.

In the Region, ethnic minorities have been using Trau trees as raw material for oil. Demand for biofuel is increasing due to the increase of crude oil price. Jatropha is much expected to be used in forestation activities as it leads to watershed conservation and poverty reduction. MARD and some universities are carrying out studies on Jatropha. Referring to the study results, an action plan proposes a pilot project to plant Jatropha.

Rural infrastructure development projects, and coordination-supplementation

Action plans on the major rural infrastructure including irrigation, rural water, roads and rural electricity propose pilot projects.

For irrigation, technical transfer of irrigation software is to take place in priority irrigation projects that are likely to start in the near future. As a way of assistance to cooperatives, this technical transfer is to make transfer of irrigation facilities to cooperatives smooth, and improve farmers' capacity to carry out operation and maintenance of the facilities. In the Region, irrigation development was mainly carried out in the low plains located between mountains. Focusing on mountain streams, an action plan proposes multi-purpose use of the streams by combining provisions of a) irrigation water to terrace field and terrace paddies in mountain areas and b) safe drinking water to villages through pipes.

For roads, projects based on the national road plan have been carried out continuously. An action plan proposes a pilot project on road operation and maintenance that supports on-going projects/activities to improve road networks. Rural electrification in the Region is likely to have low cost-effectiveness as the cost of power distribution is expected to be high due to the Region's low population density. An action plan considers establishment of facilities for off-grid power generation and distribution.

Capacity building of local government officers

Human resource development program is to be carried out for smooth planning, implementation, management and monitoring of agricultural and rural development projects/activities. As the next 5-year socio-economic development program of Vietnam starts in 2011, an action plan proposes technical transfer to DARD staff in each province so that they can play active roles in the formulation of the agricultural-sector plans for SEDP.

Monitoring of activities tend not to be given high priority because monitoring itself does not produce direct benefits. Collecting and organizing basic information on agricultural and rural development are essential in carrying out various projects that do not overlap. An action plan proposes establishment of database through the use of GIS and training on application of the data in project monitoring.

Development Issue	Food Security Improvement in the Northwestern Region		
Program	Animal Health and Production Improvement Program		
Action Plan	Animal Health Control in the Northwestern Region		
Duration	6 years		
Target Area /group	Livestock farmers and enterprises on stockbreeding in the Northwestern Region		
Implementation Agency	NIAH	Agencies for cooperation	Dept of Animal Health, Dept of Veterinary

Background and Aim

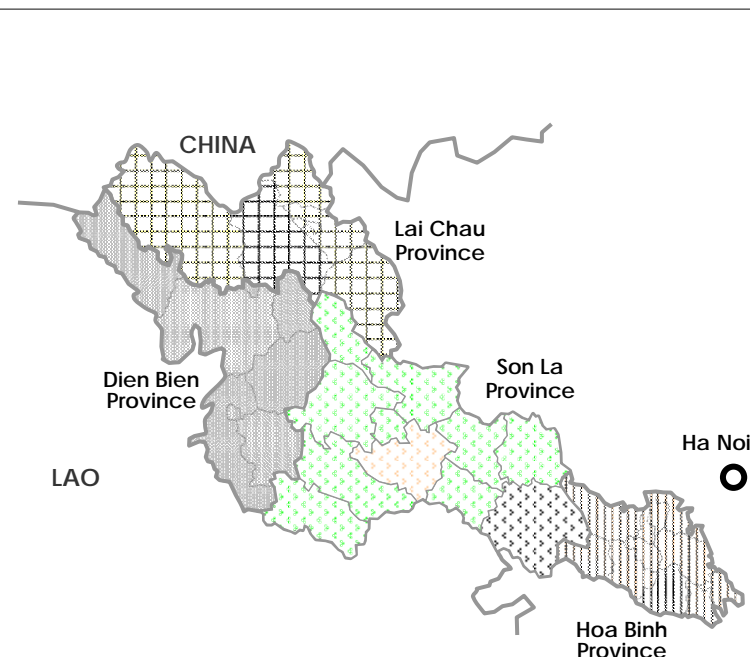
In January 2008, the Government of Vietnam released the Strategy for Developing Animal Husbandry until 2020 (10/2008/QĐ-TTg). In view of the rapid economic growth, the strategy aims to increase the annual growth rate of livestock industry to 42%. It also tries to adopt measures against epidemics and improve food safety and hygiene. Over 50 persons in Vietnam were confirmed to have died from H5N1-type avian flu/influenza (AI). Vietnam is continuously monitored by the World Organization for Animal Health (OIE), and other international agencies.

Support system to the livestock industry is not well developed in the Region. Measures against livestock epidemics are acutely needed. If an AI case happens in the Region, it takes 4-5 days to start killing chickens because samples for pathological examination must be sent to Hanoi. This will accelerate the expansion of AI and its damages. Disease-causing agents have been mutating so that there is a concern for pandemics. The present measure against AI is mass slaughtering of chicken and waterfowls, which gives enormous suffering to livestock farming households. It may cause economic losses at the national level, as well.

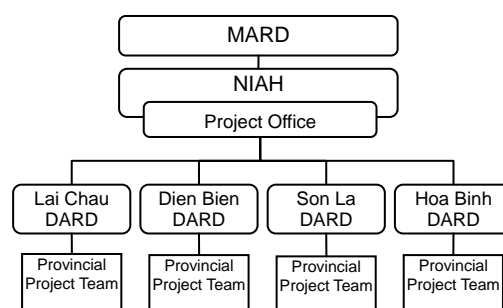
AI vaccines are manufactured in Vietnam, but WHO and other agencies have been questioning their effectiveness. (General vaccines for animals are manufactured domestically, but those made in China and Holland are frequently used) Livestock epidemics which are legally-designated infectious diseases in Japan such as anthrax disease, etc. are rampant. Rampancy of foot-and-mouth disease (FMD), with which livestock of clover-hoofed animals (5.4% of the clover-hoofed livestock population in the country are in the Region) get infected easily, is even more serious. Livestock farmers tend not to discover FMD promptly as they do not know much about the disease. This is causing the disease to spread more widely. Each province is working hard on disease prevention by trying to vaccinate livestock regularly. However, effectiveness of such prevention is hardly noticeable due to difficulties specific to the national border areas and inaccessibility to the livestock in remote mountainous areas. News on livestock epidemics started to be broadcasted lately so that people come to know more and more about them. Livestock farmers, on the other hand, do not seem to fully understand conditions of occurrences or economic losses triggered by such epidemics.

Land area of the Region is 11.2% of that of the whole nation. According to 2005 Agriculture and Forestry Statistics of Vietnam, 4.4% of all the cows in Vietnam are in the Region: figures for other animals are pigs (4.8%), water buffaloes (14.9%), and poultry/chickens (3.6%). Except for the water buffaloes, percentages of animals in the Region are considerably low. Population density of the Region is 69 person/sq. km which is among the lowest in Vietnam. This action plan aims to extend/spread safe livestock industry through establishment of epidemics free area (EFA) as a region-wide disease prevention measure.

Target Area: Northwestern Region



Organization Chart



MARD: Ministry of Agriculture & Rural Development
 NIAH: National Institute of Animal Husbandry
 DARD: Department of Agriculture and Rural Development

Project Summary									
Overall Goal Food safety of livestock products is improved due to the decreasing rate of livestock epidemics				Outputs 1. Facilities and means for epidemics prevention are established in all the routes to the target area. 2. Epidemics prevention/hygiene measure team for the Region is organized. 3. Livestock farmers’ knowledge and management about the prevention of epidemics and their sanitation are improved. 4. The Region will get certified as the first eradication area authentication of the infection (being FMD as the first step) by international organization in Vietnam. 5. Additional values to the livestock products in the Region are evaluated from the viewpoint of the food safety.					
Project Purpose Epidemics Free Area (EFA) is established where safe livestock products can be produced Income of livestock farming households is increased									
Activities		Reports and Materials		Year					
				1	2	3	4	5	6
1. Assessment of current conditions of the epidemics prevention facilities and their management									
1-1 Assessment of current conditions of the epidemics prevention system in the region									
1-1-1 Examination of influx routes to the region		- GIS Mapping							
1-1-2 Grasping of existing quarantine facilities and control system		- Database							
1-2 Review and improvement of epidemics prevention facility management									
1-2-1 Making guidelines on epidemics prevention facilities and management		- Guideline							
1-2-2 Review of management by the beneficiaries		- Guideline							
1-2-3 Training and technical guidance of the managing staff		- Teaching Material for training							
1-2-4 Commencement of management of epidemics prevention facilities		- Maintenance record book							
2. Establishment of the epidemics prevention/ hygiene measure team									
2-1 Team establishment, and the reviewing of action policy									
2-1-1 Election of the task team exclusive work personnel and the field office establishment from each DARD		- The staff list							
2-1-2 Re-examination of epidemics prevention, the relevant law and the manual about the livestock product hygiene		- Database							
2-1-3 Creation of a guideline about the activity, the management		- Guideline							
2-2 Infectious disease prevention measures									
2-2-1 Examination of infectious disease outbreaks and measures against the outbreak		- Database							
2-2-2 Improvement of communication at the time of outbreak, measures against the outbreak, communication with related agencies		- Equipment set							
2-2-3 Training of farmers in mountainous areas as veterinary assistants		- Training record							
2-2-4 The explanation of program’s positive effects to the farmers		- Lecture							
2-2-5 Distributing audio-visual equipment and material development for early detection		- The enlightenment materials and equipments set							
2-3 Support and liaison by the local government									
2-3-1 Monitoring of the activities		- Facilities maintenance record							
2-3-2 Reporting and the authentication request to international organizations		- MARD business report							
2-3-3 Introduction of activities to private firms and enticement for investment		- WEB processing							
2-4 Improvement of slaughter houses. Development of livestock products and hygiene-related equipment									
2-4-1 Development of laws and readjustment of taxation system concerning slaughter houses, and improved management of slaughter houses		- Database							
2-4-2 Development and distribution of equipments to improve hygiene during sales		- Equipment set							
2-4-3 Training on how to make food with a long shelf life, and their distribution		- Technical manual							
Inputs									
1. Experts 1-1 Animal (public) hygiene expert 1-2 Animal epidemic prevention expert 1-3 Veterinary expert 1-4 Food processing expert				2. Equipment and Materials 2-1 Equipment and materials for epidemics prevention 2-2 Equipment to produce vaccine 2-3 Equipment for food processing 3. Cost for workshop, training, etc. 4. Manual, teaching materials, etc.					
Points of Concern for Implementation									
1. As the first trial in Vietnam, this program is to make the concerned agencies understand the program contents including demonstration activities.									
2. Smooth cooperation among the ministries requires clear division of tasks and close communication.									
3. For easy understanding, outbreak conditions of the infectious diseases are to be visualized.									
4. PR activities are to be carried out to announce the establishment of infectious disease free area.									
5. Before the program implementation, this program is to report its contents (activities) to the OIE, and request other international agencies for cooperation.									

Sector	Environmental Conservation and Biomass Energy Development		
Program	Da River Watershed Conservation Program		
Action Plan	Afforestation with Rubber and Other Tree Species and Agroforestry Promotion		
Implementation Period	6 years		
Target / Area	The whole areas of watersheds of Son La dam reservoir in Dien Bien, Lai Chau and Son La provinces and of Hoa Binh dam reservoir in Son La and Hoa Binh Province		
Implementation Agency	DARD (Sub-DOF) managed by MARD (DOF)	Agencies Concerned	Provincial Rubber Corporation (PRC), DAFPPSI, NTFPRC, Management Board for Watershed Protection of Da River (MBWPDR), NIAPP, etc.

Objectives

Many hydropower dams are located in watershed areas of the Da River including Hoa Binh Dam, Son La Dam. However, it has been acknowledged that sand sediments are causing the decline of water storage capacity of dams for electric generation. These incidents are said to be caused by tree cutting in the upstream mountain area of dams where development is expanding. In order to utilize sustainable hydropower electricity, it is essential to protect the forests on the watersheds of dam reservoirs along Da river. As for the people living in the watersheds, their income is to be increased and forests in the upstream areas of the dams are to be conserved simultaneously.

This Action Plan is positioned as the Phase I (2010 to 2015) for Da River Watershed Conservation Program. According to the action plan, the community-based integrated watershed management measures will be conducted in cooperation with the income generation measures to production/protection forests on the watershed of Hoa Binh dam reservoir and Son La dam reservoir.

1) Long-term income generation measures to the production forests

Rubber trees and other useful tree species, such as Lát hoa, Dó trầm, Sưa Bắc Bộ, will be planted to the target areas. This Program will be implemented in coherence with the existing rubber tree plantation plans of each province. In case of processing latex from gum resin, rubber trees already experimentally planted in each province will also be utilized for processing of latex. Improvement of administrative capacities and cultivation of technical extension staff will also be promoted.

2) Short-term income generation to the production forests

As it takes nearly seven years to abstract gum resin and harvest timber after planting, agroforestry under planted trees will also be promoted for additional income sources. Crops which will be introduced to and cultivated under the forest crown will be recommended as food crops, such as upland rice, maize, etc., spices, such as pepper, ginger, etc., fruit trees, such as banana, jackfruit, rambutan, etc., construction/handicraft materials, such as rattan, bamboo, etc., referring the cases with Vietnam and neighboring countries.

3) Watershed management measures to the protection forests

Indigenous and native trees species will be planted to the protection forests.

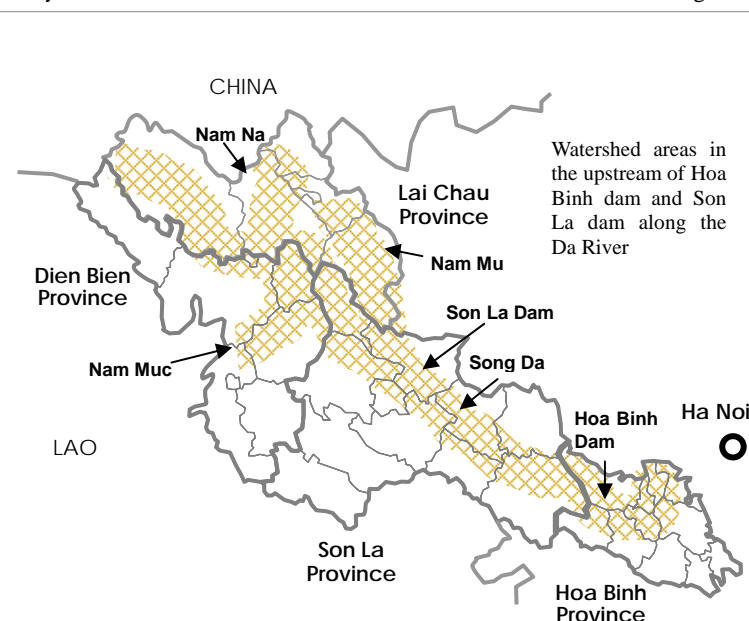
4) Improvement of processing techniques of products

Training for processing products will be conducted for future production of rubber resin and timber from useful trees.

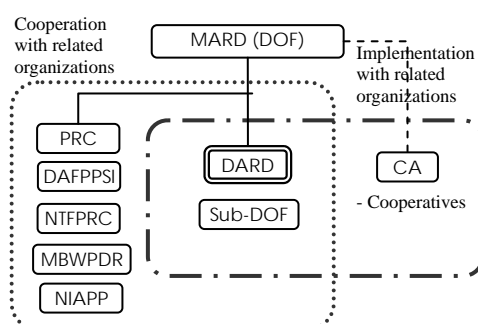
5) Opening up of new markets for the products

Market condition surveys will be conducted and new market for the products will be opened up.

Project Area: Watershed area of Son La and Hoa Binh Dams in the Region



Organizations



MARD: Ministry of Agriculture and Rural Development
 DOF: Department of Forestry
 DARD: Department of Agriculture & Rural Development
 Sub-DOF: Sub-Department of Forestry
 PRC: Provincial Rubber Company
 DAFPPSI: Department for Agro-Forestry Products Processing & Salt Industry
 NTFPRC: NTFP Research Center
 MBWPDR: Management Board for Watershed Protection of Da River
 CA: Cooperative Alliance

Project Summary								
Overall Goal Sustainable hydropower generation will be conducted on the Da river basin. Income sources of local residents will be diversified and increased in number. Project Purpose Forest soils on the target areas will be conserved and soil in-flow volume will be decreased. Livelihood of local residents at the target areas will be improved.			Outputs					
			1. Dam reservoir watershed management measures will be formulated. Establishment and demonstration of appropriate technique for coffee processing (pilot activities) 2. Reforestation on the dam watersheds and arrangement/construction of infrastructures will be conducted. Increase of the amount of coffee production in the province 3. Short-term income for the local residents will be increased by agro forestry. 4. Processing techniques of products will be improved. 5. New market of the products will be opened up.					
Activities			Reports and Materials		Annual			
			1	2	3	4	5	6
[1. Formulation of Dam Reservoir Watershed Conservation Measures]								
1-1 Formulation of Dam Reservoir Watershed Conservation Measures								
1-1-1 Site condition surveys			- Site condition reports					
1-1-2 Formulation of measures, incl. agroforestry and monitoring			- Conservation measure					
1-1-3 Conducting of baseline survey (including sediment run-off)			- Baseline survey report					
1-2 Trainers' Trainings for Extension of Techniques								
1-2-1 Assistance for plan formulation on watershed conservation			- Manuals and materials					
1-2-2 Assistance for technical extension on watershed conservation			- Manuals and materials					
1-2-3 Assistance for monitoring			- Manuals and materials					
[2. Implementation of Forestation for Watershed Conservation]								
2-1 Extension and implementation of forestation techniques								
2-1-1 Identification of suitable plantation sites and demarcation of lands			- Management maps					
2-1-2 Extension/guidance of adequate methods of plantation and tending			- Manuals and materials					
2-1-3 Forestation to production/protection forests			- Planted areas					
2-1-4 Site visits to the advanced areas			- Site visit reports					
2-2 Improvement of material procurement								
2-2-1 Guidance on procurement of good seedlings for the target areas			- Seedling procurement					
2-2-2 Technical assistance on production of good seedlings			- Seedling production					
2-2-3 Upgrading and expanding of seedling producing facilities			- Nurseries					
[3. Extension of Agroforestry]								
3-1 Development, finding and improvement of adequate seedlings								
3-1-1 Technical trainings on traditionally used varieties			- Extended techniques					
3-1-2 Development and finding of new adequate varieties			- New species					
3-1-3 Cultivation of adequate varieties under planted trees			- Cultivated areas					
3-1-4 Technical trainings on production/processing of adequate varieties			- Manuals, materials					
3-1-5 Site visits to the advanced areas			- Site visit reports					
3-2 Improvement of material procurement								
3-2-1 Technical assistance on production of good seedlings			- Seedlings production					
3-2-2 Upgrading and expanding of seedling producing facilities			- Nurseries					
[4. Promotion of Processing Techniques]								
4-1 Technical trainings on processing techniques of gum resin			- Extended techniques					
4-2 Upgrading and expanding of processing facilities			- Processing facilities					
4-3 Site visits to the advanced areas			- Site visit reports					
[5. Marketing and Sale Promotion]								
5-1 Market surveys on destinations of products of rubber and other products			- Market data files					
5-2 Assistance for sales promotion			- Manuals, materials					
Inputs								
1. Experts on			2-2 Nurseries for seedlings for agro forestry		3-3 Materials for forestation			
1-1 Watershed conservation planning			2-3 Vehicle (loading capacity: 2 tons)		3-4 Materials for cultivation of agro forestry crops			
1-2 Forestation			2-3 Processing facilities of gum resin		4. Other related materials/equipment			
1-3 Processing/utilization of rubber tree			2-4 Processing facilities of each variety		4-1 Materials/equipment for gum resin processing			
1-4 Agro forestry			3. Production materials		4-2 Material/equipment for processing of each variety			
1-5 Distribution/marketing			3-1 Materials for nurseries of rubber tree		5. Manuals/guidelines			
1-6 Specific varieties (short-term)			seedlings		6. Personal computers			
2. Facilities (including temporary facilities)			3-2 Materials for nurseries of seedlings for		7. Trainings, site visits			
2-1 Nurseries for rubber tree seedlings			agro forestry					
Recommendations								
1. Cooperation with related authorities/organizations should be considered for integrated assistance.								
2. Large-sized single-species plantation should be avoided in order to prevent from insect damage, metrological damage, and so on. However, adequate allocation and arrangement of plantation sites should be considered for efficient implementation of harvesting and transportation of the products.								
3. Promotion of locally available varieties and introduction of new varieties should be conducted to diversify kinds of products. Participatory methods should be promoted to conduct projects, as consensus building and independence of residents are necessary for sustainable resource management.								
4. Adequate assistances, such as dispatching individual experts for each agroforestry variety, on the basis of experts' judgment, as different methods be applied to each agroforestry variety on cultivation, tending and processing.								

Sector	Environmental Conservation and Biomass Energy Development		
Program	Natural Forest Preservation Program		
Action Plan	Management of Special-Use Forests and Establishment of New Nature Reserves		
Implementation Period	6 years		
Target / Area	Special-use forests in West Hoang Lien (proposed Nature Reserve), Lai Chau; Muong Nhe (Nature Reserve), Dien Bien; Sop Cop (Nature Reserve), Son La; Hang Kia – Pa Co (Nature Reserve), Hoa Binh; and Protection forests in Nam Cuoi, Tua Sin Chai and Binh Lu (proposed Species/Habitat Conservation Area), Lai Chau; Muong La (proposed Species/Habitat Conservation Area), Son La. Staff of Sub-DOF and Sub-DFP, commune-related persons, local residents inside/nearby the target areas		
Implementation Agency	DARD (Sub-DFP and Sub-DOF)	Agencies Concerned	FPD, DCST, FSIV, NGO, etc.

Objectives

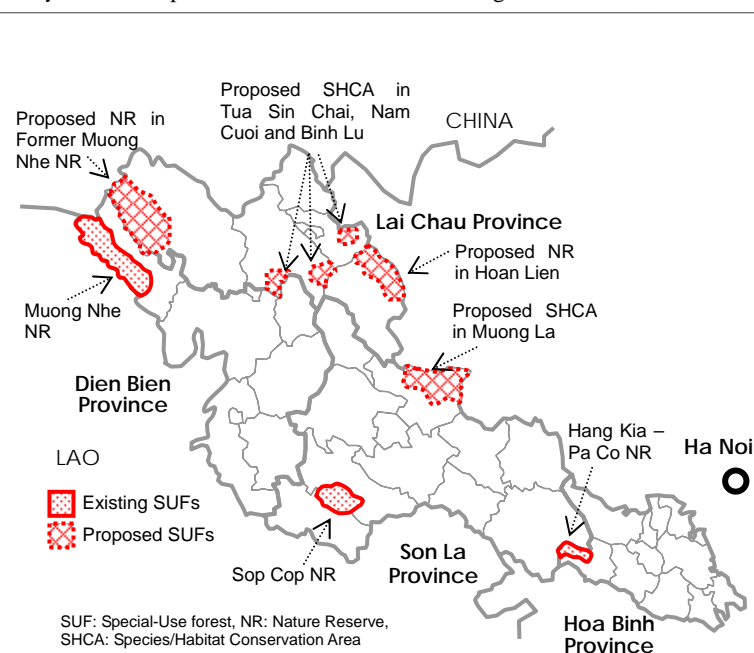
There are 12 special-use forests (SUFs) in the Northwestern Region. However, as people are living and cultivating in almost all of them, and utilize them for slash-and-burn activities and hunting, biodiversity are to be decreased in the special-use forests. Even in the protection forests with rare/endemic flora and fauna, some specific areas of forests are to be proposed to be assigned as SUFs to protect those species. As there are no boundary lines for habitation of flora and fauna, overall management and protection of flora and fauna should be taken into consideration.

This Action Plan is positioned as the Phase I (2010 to 2015) for Natural Forest Preservation Program. Pilot projects will be conducted for the special-use forests which are already designated and now proposed. Improvement of administrative capacities and cultivation of technical extension staff will also be promoted. Special-use forests will be managed by means of participatory of the local residents.

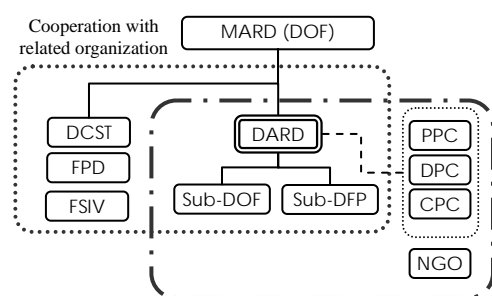
In this action plan, buffer zones around core zones of the SUF are to be included in the project areas as for special-use forests.

- (1) Formulation of overall management plan of special-use forests in the Northwestern Region
- (2) Strengthening of management system of existing special-use forests
- (3) Assistance for establishing new special-use forests
- (4) Capacity development to the management staff and technical staff
- (5) Examination of potential and possibilities for new tourism spots

Project Area: 4 provinces in the Northwestern Region



Organizations



DOF: Department of Forestry in MARD
 PPC: Provincial People's Committee
 DARD: Department of Agriculture & Rural Development
 Sub-DFP: Sub-Department of Forest Protection in DARD
 Sub-DOF: Sub-Department of Forestry in DARD
 DCST: Department of Culture, Sports and Tourism
 FPD: Forest Protection Department under MARD
 DPC: District People's Committee
 CPC: Commune People's Committee
 FSIV: Forest Science Institute of Vietnam
 NGO: Non-Governmental Organization

Project Summary									
Overall Goal Rare flora/fauna species will be protected. Special-use forests and local residents will co-exist.				Outputs 1. Special-use forest management plans for the Northwestern Region will be formulated. 2. Adequate Management of SUFs will be conducted for existing SUFs. 3. New SUFs will be established. 4. Management techniques of managing/engineering staffs will be improved. 5. Target areas will be considered and utilized as the new tourism spots.					
Project Purpose Adequate management of special-use forests will be conducted at the target areas. Livelihoods of local residents will be improved at the target areas.									
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
[1. Formulation of management plan of special-use forests in the Region] 1-1 Survey on management system of special-use forests in the Region 1-2 Formulation of management plan of special-use forest in the Region		- Survey report - Management plan							
[2. Strengthening of management system of existing special-use forests] 2-1 Survey on management system of special-use forests, incl. demarcation 2-2 Implementation of community-based management of special-use forests 2-1-1 Extension of necessity of management 2-1-2 Adequate conduction of management, incl. supplementary planting 2-1-3 Establishment of management manuals 2-1-4 Upgrading and expanding of management facilities 2-3 Improvement of material procurement 2-3-1 Technical assistance on production of good seedlings 2-3-2 Upgrading and expanding of seedling producing facilities 2-4 Conduction of community-based forest protection to special-use forests 2-4-1 Extension of necessity of forest protection 2-4-2 Conduction of protection activities, i.e. patrolling, fire prevention 2-4-3 Establishment of forest protection manual 2-4-4 Upgrading and constructing protection facilities 2-5 Construction of facilities for extension/enlightenment for special-use forests		- Survey report, demarcation - Extension manuals - Forest areas with management - Management manuals - Management facilities - Technical manuals - Nurseries - Extension manual on protection - Protected Forest areas - Protection manual - Facilities for forest protection - Facilities for extension							
[3. Assistance for establishing new special-use forests] 3-1 Establishment of special-use forest management organizations 3-1-1 Confirmation of situation of the management organizations 3-1-2 Technical trainings on establishment of management organizations 3-1-3 Establishment of management organizations 3-2 Formulation of Management Plans 3-2-1 Planning to formulate community-based plan, incl. demarcation 3-2-2 Implementation of inventory surveys 3-2-3 Formulation of community-based management plans 3-2-4 Site visits to the advanced areas 3-3 Approval as special-use forests 3-3-1 Proceeding procedures for approval as special-use forests		- Survey reports - Manuals, training materials - Management organizations - Overall plan - Inventory reports - Management plans - Site visit reports - Applications and approval							
[4. Trainings on Special-Use Forest Management] 4-1 Formulation of training plans 4-1-1 Needs assessment on trainings 4-1-2 Formulation of training plans 4-1-3 Conducts of training courses		- Survey reports - Plans, manuals, training materials - Trained trainees							
[5. Utilization of Special-use Forests as Tourism Spots] 5-1 Examination of utilization of special-use forests as tourism spots 5-1-1 Examination of management situations of special-use forests 5-1-2 Examination of possibilities to be the new tourism resources 5-1-3 Special-use forest management plan as tourism resource 5-1-4 Construction of facilities as for tourism resource		- Survey reports - Possibilities for the new resource - Management plan - Facilities							
Inputs									
1. Experts on 1-1 Forest conservation 1-2 Organization set-up and planning 1-3 Training planning 1-4 Forestation and seedling production		2. Facilities (including temporary facilities) 2-1 Nurseries for supplementary planting 2-2 Management facilities 3. Materials/equipment for nurseries for supplementary planting and management facilities		4. Inventory surveys 5. Manuals/guidelines 6. Personal computers 7. Trainings, site visits					
Recommendations									
1. Cooperation with related authorities/organizations should be considered for integrated assistance.									
2. As expected some areas in the special-use forests used as different purposes other than forests, demarcation of the lands and boundaries should be considered and conducted in cooperation with other related organizations on land uses, such as agriculture.									
3. As expected some residents living in the special-use forest areas, this program should be planned to co-exist special-use forests and residents, taking residents into consideration.									
4. In case that local people living inside the special-use forests should be resettled to buffer zones around the special-use forests in accordance with provincial regulations, enforcement of compensation, such as securement of sufficient agricultural fields, should be confirmed before implementing the action plan.									
5. Close coordination with development plans by related commune people’s committees should be taken into consideration in case for activities to be conducted in the buffer zones of the special-use forests.									
6. As there are less cooperation and coordination between Sub-DOF and Sub-DFP at each province, strengthening of cooperation/coordination should be considered in planning of program.									
7. Either regulations and guidelines in Vietnam and international guidelines on rare species, such as Vietnam Red Data Book and IUCN Red data, should be taken into consideration.									
8. Other donors’ activities and movements should be taken into consideration, as there are the capacity development project funded by GTZ at Nature Reserves of Copia, Ta Sua and Xuan Nha in Son La province, and project for strengthening and development of ecotourism sector funded by Agencia Espanola de Cooperacion Internacional para el Desarrollo (AECID) at Ngoc Son-Ngoc Luong Nature Reserve in Hoa Binh province.									

Sector	Environmental Conservation and Biomass Energy Development		
Program	Biomass Energy Development Program		
Action Plan	Introduction of Biomass Energy Production		
Implementation Period	6 years		
Target / Area	Whole areas of the Northwestern Region. Officials of DARDs, and local residents inside and surrounding production forests and bare lands		
Implementation Agency	DARD, MARD	Agencies Concerned	CBF, NTFPRC, Thanh Tay Univ., MOIT, etc.

Objectives

According to this Action Plan, which is positioned as the Phase I (2010 to 2015) for Biomass Energy Development Program, biofuel will be introduced and produced as one of alternative energy. For Vietnam, ethanol production has constraints such as limited agricultural land leading to difficulty in expanding biofuel feedstock growing area and material plants for bioethanol such as major food plants and forage plants, related to food security. Whereas, MARD has been beginning in earnest to try to consider planting *Jatropha curcas* L. as the raw materials of the biodiesel in nationwide through the Prime Minister's Decision No. 177/2007/QĐ-TTg dated 20th November 2007 on approving "Project proposal on development of biofuel until 2015 and vision to 2025" and by issuing Minister's Decision No: 1842/QĐ-BNN-LN dated 19th June 2008 concerning the approval of "the program on research, development and product use of *Jatropha curcas* L. in Vietnam in period 2008-2015 and vision until 2025".

Jatropha curcas L., namely *Jatropha* or physic nut, can be planted even on the bare lands and denuded lands in the Northwestern Region, and also taken few damage from livestock and insects by contained materials in trunks, leaves and seeds. Regarding research aspect, the Center for Biotechnology in Forestry (CBF) of FSIV and the Experiment and Research Center of Thanh Tay University (ERCTTU) start to conduct the scientific research on *Jatropha*, including pilot plantations, testing seed provenances, in order to identify the adequate/suitable provenances/varieties.

Though 5 Million Hectare Reforestation Program is under implementation and plantation onto the forest lands are being conducted, the progress to expand the planted areas is limited, because of low incentives to the local residents. As *Jatropha* can be the new income-generating materials for the rural people in the Region, *Jatropha* plantation can be recommendable for those rural mountainous areas in the Region. Moreover, by-products after extraction can be utilized for many kinds of purposes, such as presscakes for organic fertilizers, and seed husks for biogas. Tung-oil trees, which have been already planted in the Region, are to be one of the candidate oil-producing tree species

(1) Introduction of adequate species and supply of good seedlings of biofuel feedstock species, including *Jatropha* and Tung-oil tree

Adequate tree species for biofuel feedstock will be examined, taking results of experimental plantation of *Jatropha* at CBF and so on. Facilities to produce good seedlings for biofuel feedstock species will be arranged in the Region. Oil crops other than *Jatropha*, such as Tung-oil tree, will be considered, hence seedlings will be produced.

(2) Plantation plans with several tree species, including *Jatropha*, Tung-oil tree, will be formulated, and adequate methods of plantation/tending will be extended.

Plantation plans will be formulated in accordance with site conditions by tree species, including *Jatropha* and Tung-oil tree. Adequate methods for plantation and tending will be instructed to the local residents.

(3) Development and improvement of oil extraction methods and facilities

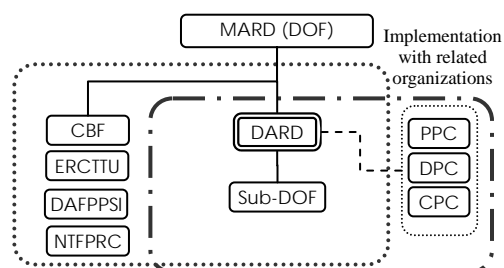
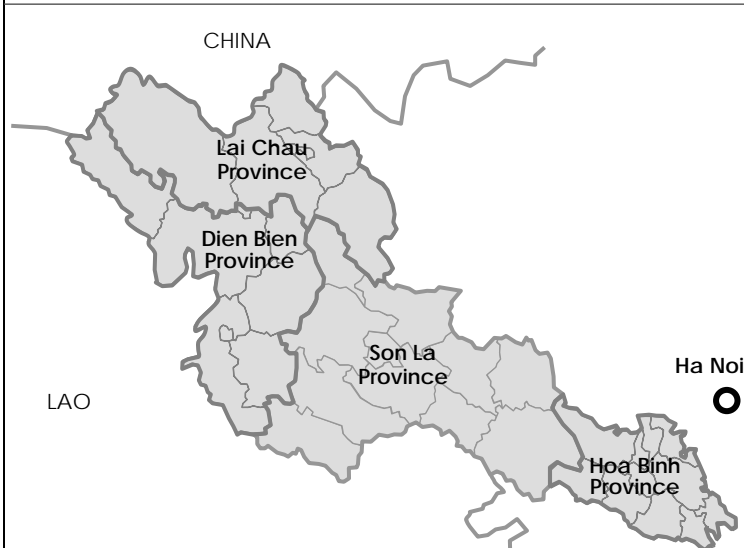
Oil extraction methods from oil seeds, including *Jatropha* will be developed in cooperation with CBF, NTFP Research Center and ERCTTU together with DAFPPRSI. Oil extraction facilities will be developed and constructed in accordance with the research results mentioned above. Utilization methods of by-products from oil extraction procedures will be developed simultaneously. Simplified oil extraction units will be distributed to each village to facilitate to use the extracted oil for household level.

(4) Promotion of launching the private sector

Biodiesel will be planned to be produced by the private sector. Workshops and seminars on the biodiesel will be held for the private sector in cooperation with MOIT, and launching of private sector into the biodiesel production will be promoted.


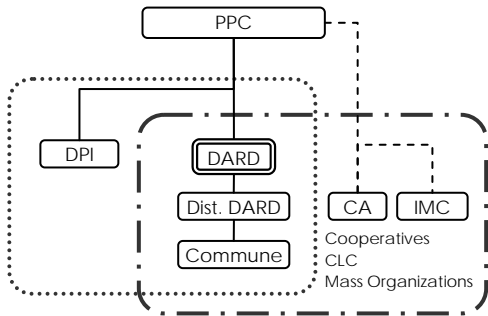
Project Area: Production forests and bare lands in four (4) provinces

Organizations



DOF: Department of Forestry under MARD
 PPC: Provincial People's Committee
 DARD: Department of Agriculture & Rural Development
 Sub-DOF: Sub-Department of Forestry under DARD
 CBF: Center for Biotechnology in Forestry of FSIV
 ERCTTU: Experiment & Research Center of Thanh Tay University
 DAFPPSI: Department of Agro-Forestry Products Processing & Salt Industry under MARD
 NTFPRC: NTFP Research Center of FSIV
 DPC: District People's Committee
 CPC: Commune People's Committee

Project Summary									
Overall Goal Biodiesel fuel (BDF) will be produced in sustainable manner. Income sources of local residents will be diversified and increased. Project Purpose Basement for securing renewable energy will be developed at the Northwestern region, including the target areas. Livelihood of local residents at the target areas will be improved.			Outputs 1. Bio-derived fuel production plans will be formulated. 2. Seedlings of tree species for biofuel feedstock will be produced. 3. Biofuel feedstock trees will be planted; hence planted trees be managed. 4. Oil extraction techniques will be developed and improved, hence productivity of biodiesel will be improved and extracted oil will be utilized at household level. 5. Private sectors will be promoted and launched into production of biodiesel.						
Activities			Reports and Materials		Annual				
			1	2	3	4	5	6	
[1. Formulation of Bio-fuel Production Plan]									
1-1 Formulation of Bio-fuel Production Plan									
1-1-1 Grasping situation of production bio-fuels in Vietnam			- Condition survey report						
1-1-2 Formulating biofuel production plan, including seedling production, oil extraction			- Production plan, plantation map						
1-1-3 Monitoring on grasping of bio-fuel production plan			- Monitoring report, feedback						
1-2 Trainings of instructors for extension of techniques									
1-2-1 Assistance for production of biofuel feedstock plants			- Manuals, training materials						
1-2-2 Assistance for oil extraction from biofuel feedstock plants			- Manuals, training materials						
1-2-3 Assistance for monitoring			- Manuals, training materials						
[2. Development and Production of Biofuel Feedstock Tree Species]									
2-1 Development and improvement of adequate species									
2-1-1 Development of adequate tree species			- Adequate tree species						
2-1-2 Technical trainings on production of adequate tree species			- Improved techniques						
2-1-3 Site visits to the advanced areas			- Site visit report						
2-2 Improvement of material procurement									
2-2-1 Technical assistance on production of good seedlings			- Production of seedlings						
2-2-2 Upgrading and expanding of seedling producing facilities			- Nurseries						
[3. Implementation of Plantation and Management of Biofuel Feedstock Trees]									
3-1 Implementation and extension of plantation techniques									
3-1-1 Technical assistances for identification of suitable sites and demarcation			- Plantation sites						
3-1-2 Plantation of biofuel feedstock tree species			- Increment of planted areas						
3-1-3 Extension/guidance of adequate methods of plantation and tending			- Manuals, training materials						
3-1-4 Site visits to the advanced areas			- Site visit reports						
3-2 Improvement of material procurement									
3-2-1 Technical assistance on production of good seedlings			- Production of seedlings						
3-2-2 Upgrading and expanding of seedling producing facilities			- Nurseries						
[4. Development of Extraction Techniques of Biofuel Feedstock Seeds]									
4-1 Development/promotion of extraction techniques of biofuel feedstock seeds									
4-1-1 Research/development of oil-extraction techniques from seeds			- Developed techniques						
4-1-2 Upgrading/expanding extraction facilities of biofuel feedstock seeds			- Extraction facilities						
4-1-3 Technical trainings on extraction techniques			- Improvement of techniques						
4-1-4 Promotion to utilize extracted oil by distributing simplified extraction units			- Report on oil utilization						
4-1-5 Site visits to the advanced areas			- Improvement of motivation						
4-2 Development/promotion of utilization of by-products after oil extraction									
4-2-1 Research/development of by-products after seed extraction			- Developed techniques						
4-2-2 Upgrading/expansion of by-products after seed extraction			- Processing facilities						
4-2-3 Technical trainings on utilization of by-products			- Improvement of techniques						
4-2-4 Site visits to the advanced areas			- Site visits reports						
[5. Extension of Biofuel Production]									
5-1 Marketing and Sale Promotion									
5-1-1 Market surveys on market destinations of biofuels and by-products			- Market data files						
5-1-2 Assistance for sales promotion			- Manuals, training materials						
5-1-3 Site visits to the advanced areas			- Improvement of motivation						
5-2 Promotion and launching of private sector into production of biofuel									
5-2-1 Workshops for private sector			- Introduction of private capital						
5-2-2 Promotion to the private sector			- Possibilities of private sector						
Inputs									
1. Experts on			1-5 Private sector		4. Other related materials/equipment				
1-1 Forestation/Forest management			2. Facilities		4-1 Materials/equipment for oil extraction facilities				
1-2 Biodiesel fuel			2-1 Nurseries, Oil extraction facilities		4-2 Simplified oil extracting units				
1-3 Oil extraction techniques/facilities			3. Materials for nurseries of <i>Jatropha</i> tree		5. Manuals/guidelines				
1-4 Distribution/marketing			seedlings, plantation and cultivation		6. Trainings, site visits				
Recommendations									
1. Cooperation with related authorities/organizations should be considered for integrated assistance.									
2. Species which are uncompetitive with food plants and forage plants should be considered to be introduced. And plantation sites should be allocated, taking other food plants and forage plants into consideration.									
3. Participatory methods should be promoted to conduct projects, as consensus building and independence of residents are necessary for sustainable resource management. Utilization of extracted oil will be promoted by distribution of simplified extracting units to each village to extend/enlighten efficiency of oil crops.									
4. This program should be planned and implemented, taking consistency with “Project proposal on development of biofuel until 2015 and vision to 2025” and decision on “the program on research, development and product use of <i>Jatropha curcas</i> L. in Vietnam in period 2008-2015 and vision until 2025” into consideration. Moreover, sufficient communications with research centers, as CBF, NTFPRC and ERCTTU, to avoid overlaps in research themes and planned items.									
5. Although it is not admirable to have the quite large areas of the uniform forests by single tree species on the points of view of biodiversity and disaster prevention, it is recommended to spread some amount of large areas of blocks of the single tree species and introduction of mixed forests with other oil crops in order for easy and efficient transportation of the taken fruits to the processing facilities.									
6. Participation by the private-sector will be considered in the fields of processing lines and extraction of oil.									

Sector	Irrigation and Water Supply Development		
Program	Water User's Organization (WUO) Strengthening Program		
Action Plan	Water Use's Organization (WUO) Strengthening Pilot Project		
Implementation Period	3 years		
Target / Area	Four medium-scale irrigation projects with each area of more than 30ha will be selected as target areas out of 35 priority projects. At present, pilot project sites are set up in Lai Chau Province-Sin Ho District, Dien Bien Province-Tuan Giao District, Son La Province-Moc Chau, Hoa Binh Province-Lac Son.		
Implementation Agency	DARD (Require adjustment with PPC)	Agencies Concerned	IMC, Agricultural Extension Centers, etc.
Objectives <p>Irrigation management of the large-and medium-scale irrigation systems was the responsibility of IMC, which was arranged in each province. However, such political institutions were abolished according to the Degree No.154/2007/ND-CP in 2007 with provision of exemption of irrigation service fee to be collected, and hence the policy of irrigation management has been switched over from IMC to the beneficiaries, who have to take full responsibility of O&M. Before such decision, MARD issued guidelines on the establishment, strengthening, and development of WUO. In this sector, the Government of Japan has been supporting MARD through the technical cooperation project, "Capacity Development of Participatory Irrigation Management System for Improvement of Agricultural Productivity".</p> <p>In order to sustain the irrigation development, establishment and strengthening of WUO is essential for carrying out the appropriate operation and maintenance works for irrigation facilities with the participatory approach. Irrigation development projects in the northwestern region were implemented under EU assistance or Program 135, but their irrigation facilities have not been well managed, comparing with other regions. Considering the sustainable irrigation development, it will require diversified assistances to strengthen the hard and soft fields such as provisions of facilities and water management organizations, in addition, those assistances should be introduced as soon as possible. In this master plan, the Water User's Organization Strengthening Program is proposed to supplement the current irrigation development focusing on the hard field.</p> <p>This action program aims to demonstrate and exhibit the optimum establishment of WUO through trial management of this organizations in the typical medium-scale irrigation systems with each area of 30 to 100 ha which will be selected as pilot projects for the program. The program will assist the WUO activities being done for the irrigation systems that will be handed over to beneficiaries after finishing construction works that will commence in 2009. On-the -Job training will be carried out for DARD staffs during the program period and the organizations to sustain administrative services for medium-scale irrigation systems will be established.</p> <p>On-the-Job Training shall be done not only for administrative staffs in respect to maintenance of irrigation facilities but also for beneficial farmers on how to manage farming from an overall point of view. For instance, (1) capacity building of participatory development and programming WUO establishment and strengthening for DARD staffs, (2) technical transfer to WUO in connection with operation and maintenance of irrigation facilities (3) technical transfer in connection with farm management and cultivation technique, (4) support for market forming of agricultural product</p> <p>Guidance for farm management focusing upon ethnic minorities- residents living in mountainous areas is valuable in this program.</p>			
Project Area: 4 provinces in the Northwestern Region		Organizations	
		 <p>PPC: Provincial People's Committee DARD: Department of Agriculture & Rural Development DPI: Department of Planning & Investment IMC: Irrigation Management Company CA: Cooperative Alliance</p>	

Project Summary									
Overall Goal		Outputs							
Improvement of irrigation infrastructures for increasing agricultural products and income, and improvement of living standard Project		1. Formulation of WUO program for establishment, promotion, organizational structure, activities, and participatory development							
Purpose		2. Improvement of capacity of DARD through training of management and O&M of irrigation systems							
1. Strengthening management and O&M of the irrigation facilities in the program target areas		3. Execution of farmer’ s participatory O&M of irrigation facilities							
2. Enhancement of irrigated farm practices in the program target areas		4. Execution of appropriate irrigated farming							
		5. Improvement of agricultural sale drive							
Activities		Reports and Materials		Annual					
				1	2	3	4	5	6
1.Capacity improvement of DARD leaders									
1-1 Collection of data for hydraulic facilities covering about 200 of existing irrigation areas		- Database							
1-2 Capacity improvement of farmer’s participatory development									
1-3 Preparation of guidelines on activity flow for establishment and promotion of WUO		- Guideline							
1-4 Technical guidance to administrative staff for farmers’ development		- Guideline							
1-5 Training of DARD and District staff for formulation of the program on yearly O&M		- Annual program							
2. Supporting for establishment and promotion program of WUO									
2-1 Workshop for enlightenment for WUO members		- Memorandum							
2-2 Preparation of articles of WUO members, organizations and activities		- Article							
2-3 Preparation of activity program of WUO		- Activity program							
2-4 Participatory development in O&M and rules for water fee collection		- Workshop for farmers							
3. Technical transfer of O&M through on-the-job training									
3-1 Preparation of manual and training for O&M and on-far development		- Manual							
3-2 Execution of participatory management and O&M, and on-farm development		- Working record							
3-3 Improvement of facilities by administration (repairing works for canal lining)									
4. Guidance of farm management									
4-1 Selection of crops (diversification for secondary crop) and preparation of agricultural calendar		- Cropping calendar							
4-2 Balance sheet of input materials and farm gate price		- Management program							
4-3 Analysis of administrative services and other needs		- Requirement of assistance							
4-4 Guidance of farm management		- Guidance record							
5. Assistance in connection with marketing formation									
5-1 Marketing and consumption research		- Marketing research report							
5-2 Assistance of shipment by WUO groups		- Sales record							
Inputs									
1. Experts on		2. Equipment and Materials							
1-1 Irrigation/water user’s association		2-1 Construction materials (Concrete Panel)							
1-2 Participatory development		3. Workshop and training course							
1-3 Farm management		4. Manuals and teaching materials							
1-4 Infrastructure		5. Equipment and materials for PC and internet							
1-5 Participatory development									
1-6 Cultivation・distribution・marketing									
Recommendations									
1. The implementation schedule of this action plan shall be closely adjusted to the progress of the construction works. The action plan will commence after finishing hand-over of irrigation facilities that will be completed.									
2. Experience and lesson obtained from on-going JICA technical cooperation “Capacity Development of Participatory Irrigation Management System for Improvement of Agricultural productivity” is worth applying for this program.									
3. In order to sustain the project, it is important to cooperate with NGO for supplement of administrative services.									
4. Considering the further development in future, medium- scale irrigation projects are better to be based on bottom-up typed orientation. In implementation of the action plan, participatory development is inevitable to be taken into the implementation process.									

Sector	Irrigation and Water Supply Development		
Program	Mountain Stream Multipurpose Use Program		
Action Plan	Mountain Stream Multipurpose Use Pilot Project		
Implementation Period	6 years (Phase 1: Pilot Project Phase 2: Extension over the Whole Area)		
Target / Area	The program covers the whole northwestern region. Priorities for selection of projects will be put on communes with low water supply rate, although project proposals by farmers are basically evaluated to select the target areas. The eight pilot areas (two areas per province) will be implemented in Phase I and 40 areas (10 areas per province) will be in Phase II.		
Implementation Agency	DARD (Require adjustment with PPC)	Agencies Concerned	IMC, Agricultural Extension Centers, WSC etc.

Objectives

Irrigation areas in the northwest have 80% of the existing irrigation sites consisting of small sites less than 30ha (mostly 5ha) due to geographical restriction. Those small-scale irrigation facilities are also used as water sources for rural water supply. Most of water supply facilities are simply provided by farmers, but not well consolidated and become degraded. According to CDP, lack of knowledge on sanitation and hygiene is causing water-borne diseases. Contamination of water at water sources and in irrigation canals caused by livestock has been a serious problem.

Rural water supply project, Program 135 generally aims to exploit groundwater as a major water source that is reserved around valleys, hence the water supply rate has been decreasing in mountainous areas and caused a big development gap between mountainous and flat land. Many water facilities that dried up or broken down within a few years after construction were found. The main reasons for the dry-up and break down were not enough data on groundwater and lack of operation and maintenance. Therefore, it is better to find out stable surface water and to study the optimum use of this water.

The mountain stream multipurpose use program aims to raise water access rate to local residents, especially ethnic minorities living in mountainous areas, taking into consideration the above development constraints. At the same time, fish cultivation, micro hydropower generation and other uses are considered into multipurpose elements to develop the efficient use of limited water resources and the sustainable water utilization projects.

The program will be formed, being based on the bottom-up development method to meet requirements from local people and to assure them of job- opportunities, for instance, participatory development will be introduced in the development process.

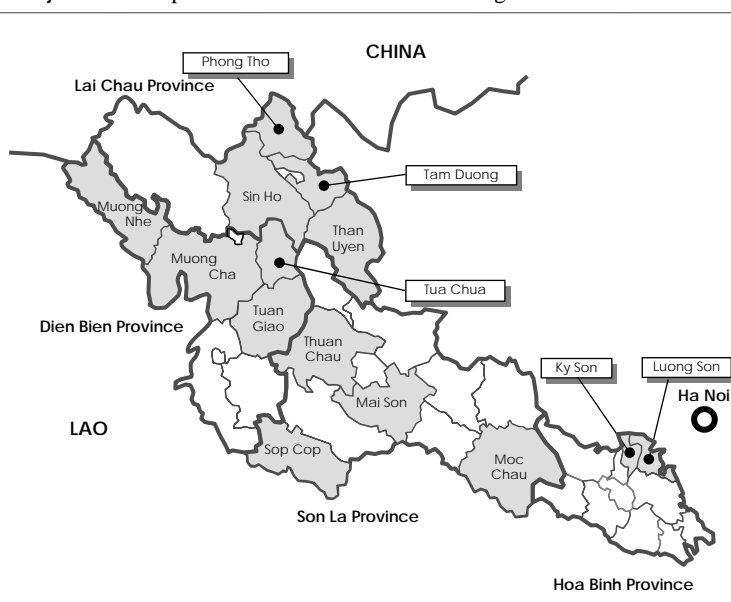
The program commences from the time when the administrative office announces to receive submission of the project outline and farmers' proposals for high priority areas to be developed after mobilizing a development fund.

The administrative offices and NGO will select priority project areas based on the proposals by farmers, creating farmers' awareness. Following the selection, the project process will be made in accordance with the followings: (1) organizing beneficiary farmers' group (establishment and agreement of rules), (2) planning, (3) construction (a part of construction works will be carried out with farmers' participation), (4) monitoring and evaluation. In addition to this process, educational training for main organizations such as DARD and CERWASS is also an important issue of the program.

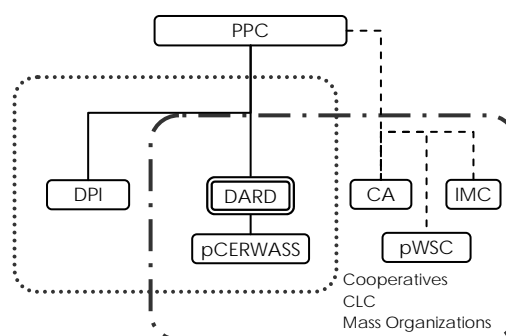
This action plan aims to strengthen the stable food production against food shortage in remote area. The possibility of introduction of cash crops will be studied and if necessary, soft components such as guidance for farm management and marketing formation will be supported in this action plan.

The pilot projects will be carried out in the first phase (2010-2012) to optimize the project process. Based on the outputs obtained in the first phase, the projects are extended for other areas.

Project Area: 4 provinces in the Northwestern Region



Organizations



PPC: Provincial People's Committee
DARD: Department of Agriculture & Rural Development
DPI: Department of Planning & Investment
IMC: Irrigation Management Company
CA: Cooperative Alliance

Project Summary							
Overall Goal Enhancement of irrigated rate and domestic water supply rate Project Purpose Purpose 1. Establishment of development process for small scale multipurpose rural water supply and sustainable water utilization			Outputs 1. Formation of participatory development program with respect to multipurpose rural water supply 2. Improvement of administrative capability through training of multipurpose rural water supply program 3. Execution of participatory construction with respect to irrigation and rural water supply systems				
Activities	Reports and Materials	Annual					
		1	2	3	4	5	6
Phase I Pilot project in priority areas (Each province 2 areas, Total 8 areas)							
1.Study on development process for multipurpose water supply and selection of priority areas							
1-1 Preparation of working flow of small-scale irrigation and domestic water supply systems for which water is taken from the mountain stream.	- Implementation Program	■					
1-2 Formulation of guidelines for preparation to be prepared by farmers themselves	- Guidelines for Proposals	■					
1-3 Motivation for farmers and guidance for preparation of proposals by farmers	- Guideline for Farmers	■	■				
1-4 Evaluation of Proposals and selection of areas	- List of pilot project	■	■				
2.Formulation of multipurpose facilities development (Construction will be completed within 2 months)							
2-1 Formation of farmers’ organizations in the pilot areas	- Understanding for participatory development	■	■				
2-2 Formation of water user’s organizations (groups without cooperate rights allowable)	- Draft construction program	■	■				
2-3 Preliminary study on construction program and project cost	- Understanding	■	■				
2-4 Explanation to farmers, hearing about farmer’s willing, and formation of understanding	- Construction program	■	■				
2-5 Review of construction program (if necessary)		■	■				
2-6 Cost estimation and budget compilation		■	■				
3.Preparatory construction (Construction will be completed within 2 months.)							
3-1 Explanation of construction program for local residents	- Construction record			■	■		
3-2 A part of hydraulic structures (water tank, canal and turnout) are constructed by contractors	- Construction record			■	■		
3-3 Participatory construction				■	■		
4.Guidance of farm management							
4-1 Selection of crops (diversification for second crops), preparation of agricultural calendar	- Cultivating program			■	■		
4-2 Balance sheet of input materials and gate price	- Management program			■	■		
4-3 Analysis of administrative services and other needs	- Requirement of assistance			■	■		
4-4 Guidance of farm management	- Guidance Record			■	■		
5.Assistance in connection with marketing formation							
5-1 Marketing and consumption research	- Marketing research report				■	■	
5-2 assistance of shipment by WUO groups	- Sales record				■	■	
Phase II Extension to other areas (Each province 10 areas Total 40 areas)							
1.Review of development process and selection of priority areas							
2. Formulation of multipurpose facility development (Construction will be completed within 2 months.)							
3. Participatory construction (Construction will be completed within 2 months.)							
4.Assistance in connection with guidance of for guidance of farm management and marketing formation							
Inputs							
1. Experts on		2. Equipment and Materials					
1-1 Irrigation/water user’s organization		3. Workshop and training course					
1-2 Participatory development		4. Manuals and teaching materials					
1-3 Farm management		5. Equipment and materials for PC and internet					
1-4 Cultivation • distribution • marketing							
Recommendations							
1. It is necessary to carry out pre-studies on traditional water management, introduction of new technology and even distribution of resources, for which there exist opponents.							
2. Multipurpose development projects for the use of irrigation and domestic water supply requires to sustain good cooperation with related agencies and to receive supports from them.							
3. It is necessary to strengthen and train irrigation and participatory development experts. An irrigation trainee shall have the basic concept of participatory development and on the other hand, a participatory development trainee shall have a basic knowledge of irrigated agriculture.							
4. Specific considerations should be taken into managing even distribution of limited water resources based on proposal typed development that will be executed by inexperienced ethnic minorities. For example, the form of a proposal shall be simplified as possible as and community which can not understand Vietnam language shall be supported for motivation to prepare the proposal and writing a letter for them.							
5. It will require to establish the development fund mobilizing scheme in order to manage the full-dress program.							

Sector	Rural Road Development		
Program	Rural Road Maintenance Program		
Action Plan	Rural Road Operation and Maintenance Pilot Project		
Implementation Period	6 years (Phase 1: Pilot Project Phase 2: Extension over the Whole Area)		
Target / Area	Target Area : Lai Chau-Phong Tho District, Dien Bien-Tua Chua District, Son La- Maison District Hoa Binh-Ky Son District Target Group : Beneficiary commune people		
Implementation Agency	DOT, DPC, CPC	Agencies Concerned	DPI, DARD

Objectives

Rural road networks satisfy the basic human needs by providing better linkages to markets, education and health facilities. They offer access to markets located outside isolated areas and create job opportunities. They contribute to development of rural industries, which increases people's income. It is, therefore, necessary to build efficient rural road networks.

The Northwestern Region is located mostly in mountainous areas, where many rural roads are not connected to the district and provincial roads. In addition, these roads cannot be used during the rainy season. As a result, most villages become isolated with no traffic and transport access. Although improvement and maintenance of rural roads are carried out by DOT, DPC, CPC and local people, quality of road maintenance as well as the rate of improvement are very low due to very small local funds.

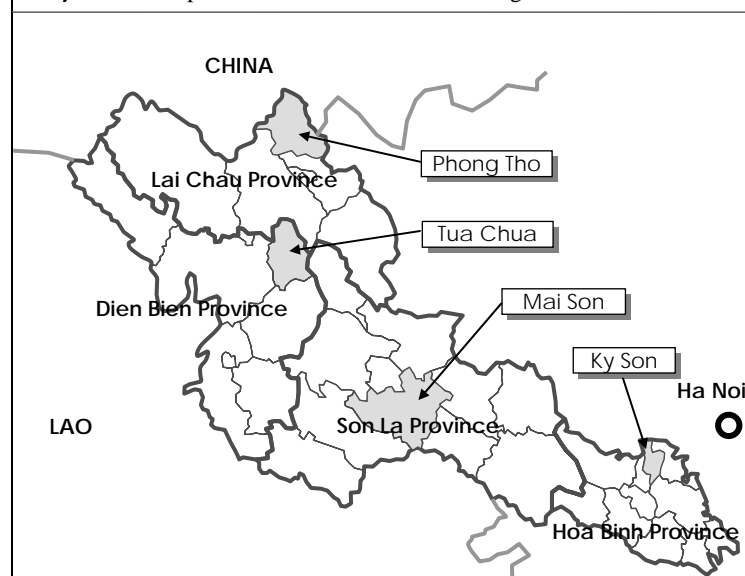
Construction and improvement of rural roads have been done by DOT in accordance with the provincial road master plan, using domestic and overseas fund including JBIC. This action plan does not cover such work.

Objectives of this program, "Rural Road Management on Operation and Maintenance" (2010-2015) are to establish a management system, promote people's participation and exploit and manage optimum fund sources for operation and maintenance of rural road networks consisting of district, commune, inter-commune and village roads. Details of the objectives are;

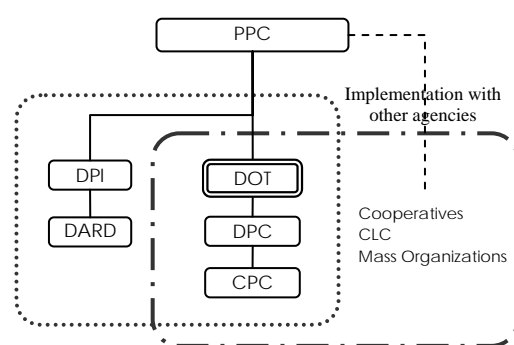
- 1) To build capacity of local government staff in the four provinces
- 2) To establish data bases on rural road information and set up e-network of the relevant organizations such as DOT, DPC and CPC to share the data bases
- 3) To prepare the operation and maintenance guideline in collaboration with local government staff and people
- 4) To enhance rural road operation and maintenance with local people's participation

For selection of target areas, priority will be put on districts and communes that require immediate implementation of road improvement ranked by DOT. Priority will be also put on communes that proposed development of road in their CDPs or areas where multiplier effects are expected through the cooperation with other development programs such as agricultural production, cottage industries including NTFP and rural tourism.

Project Area: 4 provinces in the Northwestern Region


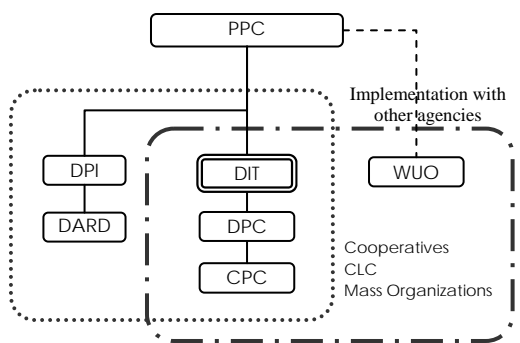


Organizations



PPC: Provincial People's Committee
DARD: Department of Agriculture & Rural Development
DPI: Department of Planning & Investment
DOT: Department of Transport
DPC: District People's Committee
CPC: Commune People's Committee
WUO: Water User's Organization

Project Summary							
Overall Goal Improvement of road access and enhancement of job opportunity and income generation Purpose 1. Improvement of operation and maintenance systems for rural road in target areas 2. Enhancing of people's concern for operation and maintenance of rural road in target areas				Outputs 1. Development of administrative capacities through training on O&M of rural roads 2. Establishment of data base on existing and proposed roads 3. Preparation of O & M guide 4. Implementation of road repairing works by people's participation and establishment of organization for O &M			
Activities				Reports and Materials		Annual 1 2 3 4 5 6	
Capacity Building of Administrative staffs in NW Provinces 1-1 Management Training of Leaders of Rural Maintenance 1-1-1 Data collection for making rural road O&M plan 1-1-2 Plan of monthly and yearly road maintenance by responsible staffs 1-1-3 Technical guidance for supervision and construction equipment 1-1-4 Listing of local contractors and construction equipment 1-1-5 Training to promote people's participation (workshop) Establishment of Data Base and e-Networks 2-1 Collection, Processing and Communication of Information 2-1-1 Database (location, construction time, improved rate, O&M record) 2-1-2 Explanation on database to district and commune staffs 2-1-3 Database network shared by commune, district, province 2-1-4 Transmission of latest information to local people Preparation of Operation and Maintenance Guideline 3-1 Establishment of O&M System and Preparation of Guideline 3-1-1 Preparation works before setting up O&M 3-1-2 O&M guideline in collaboration with administrative staffs and peoples 3-1-3 O&M systems through discussion among staffs and workshop 3-1-4 Investigation of local materials for road construction 3-1-5 Setting up fund mobilization system 3-1-6 Establishment of monitoring system Operation and Maintenance of Road with Local People's Participation 4-1 Workshop and Demonstrated Operation and Maintenance Works 4-1-1 Sensitization of people on road O&M 4-1-2 Preparation of O&M manual(daily, emergency time) 4-1-3 Technical training on O&M 4-1-4 Demonstration of repairing works by local people 4-1-5 Construction of monument and memorial tree-planting				- Rural road map - Plan - Lecture - List - Workshop - Database on road maintenance - Explanation meeting - Joint network system - Sharing road information - Enhancing staffs understanding - Guideline - Workshop - Materials - Fund mobilization system - Database formation - Enhancing people's concern - O&M manual - Mastery of technique by people - Repairs of rural road - Monument and tree-planting			
Inputs 1. Experts on 1-1 Social development expert 1-2 Road infrastructure expert 1-3 Database expert 1-4 Environmental expert 1-5 Participatory development expert 1-6 Project evaluation and monitoring expert 2. Equipment and materials 2-1 Construction equipment and materials 2-2 Sign board and guardrail 2-3 Monument and tree-planting 3. Expenses for workshop 4. Manual and teaching materials							
Recommendations 1. For capacity building for local government staffs, training of DPC and CPC staffs responsible for rural roads is ranked high as a priority subject. 2. Basic data on rural roads shall be changed into e-files by using GIS, which shall be shared by internet among DOT, DPC and CPC staffs engaging in rural road O&M. 3. Local people's participation is inevitable for setting up O&M organization of rural roads in the mountainous areas. For preparation of guidelines for O&M, local people's opinions shall be heard in the workshop. 4. In mountainous areas, construction cost per km will be higher than that in plain areas. Local materials shall be used for road works as much as possible. 5. In response to fund requirements at daily and emergency time, the rural road fund mobilization system at the community level shall be established. Simple procedure and quick action shall be included into the system.							

Sector	Rural Electrification		
Program	Renewable Energy Development for Rural Electrification Program		
Action Plan	Renewable Energy Development Pilot Project		
Implementation Period	6 years		
Target / Area	Target: Lai Chau- Muong Te District, Dien Bien- Muong Nhe District, Son La- Song Ma District Target Group : Non-electrified communes		
Implementation Agency	DOT, DPC, CPC	Agencies Concerned	DPI, DARD
<p>Objectives</p> <p>Development constraints of rural electrification in remote, mountainous areas include complicated topography, scattered and thin population, communes being far from the national grid. Setting up power transmission lines and constructing distribution facilities require a large investment. EVN has been giving development priorities to a) non-electrified rural areas that can easily access to the existing national electric networks and b) electrified areas where electric energy losses are increasing due to the deterioration of their equipment. The Department of Industry and Trade in the Province has been implementing prioritized projects by using fund from the national government and foreign countries in accordance with the above criteria.</p> <p>Off-grid type electrification was implemented in combination with irrigation projects by PPC while receiving fund and supervision from MARD. Since 1999, off-grid electrification has been done independently under the leadership of PPC. However, establishment of off-grid system by PPC is not going smoothly due to local officers' low capacity of plan formation, fund mobilization and project implementation.</p> <p>Objective of this program is to electrify communes far from the national grid by using renewable energy. In the pilot project, off-grid type electrification is to be done by using independent local power sources such as micro hydropower, solar energy, wind power and biogas.</p> <p>For the selection of target areas for the pilot project, priorities will be given to communes that require immediate electrification (as proposed by DIT). These communes have a very low rate of electrification proposed, proposed electrification in the Commune Development Plan (CDP), or are located in areas where multiplier effects are expected through the cooperation with other development programs such as agricultural production, cottage industries including NTFP and rural tourism.</p>			
Project Area: 4 provinces in the Northwestern Region		Organizations	
		 <p>DARD: Department of Agriculture & Rural Development DPI: Department of Planning & Investment DIT: Department of Industry & Trade DPC: District People's Committee CPC: Commune People's Committee WUO: Water User's Organization</p>	

Project Summary								
Overall Goal			Outputs					
1.Expansion of rural electrification in remote areas and improvement of living standard for ethnic minorities			1. Improvement of administrative capacity through training and workshop					
2.Quality improvement of education, medical care and public hygiene			2. Progress of power development by off-grid type electrification					
Purpose			3. Implementation of model projects for rural electrification under the leadership of DIT and DPC					
1. Increase of electrification rate in the target areas			4. Compilation of guideline on participatory O&M of electric facility					
2.Improvement of capacity to formulate electrification projects			5. Contribution to reduction of CO2emmission through the use of renewable energy					
Activities			Reports and Materials		Annual			
			1	2	3	4	5	6
Capacity Building of Administrative Staffs in NW four Provinces								
1. Staff training for project formation of rural electrification								
1-1-1 Data collection on rural electrification program			- Listing of Non-electrified houses					
1-1-2 Collection of information on fund mobilization for rural electrification program			- List of donors and NGOs					
1-1-3 Human resource development on management and supervision of studies, implementing work, and monitoring			- Improved capacity on planning and implementation					
1-1-4 Investigation of local contractors and available equipment and materials			- Lists					
1-1-5 Training to enhance people’s participation (through workshop)			- Workshop					
Investigation and Analysis of Off-Grid typed Rural Electrification								
2-1 Study on power development by applying renewable energy								
2-1-1 Potentials of micro hydropower generation (water resources, site, capacity)			- Site selection					
2-1-2 Possibility of solar, wind power and biogas generation			- Analyzed data					
2-1-3 Explanation of rural electrification to district and commune staffs			- Explanation meeting					
2-1-4 Cost estimation on installation, operation and maintenance works			- Cost estimation					
2-1-5 Advice to DIT staffs on data management of off-grid typed power sources			- Establishment of database					
Project Formation for commune Electrification								
3-1 Project formulation and implementation								
3-1-1 training of project planning (advice by expert, site inspection)			- Improvement capacity to write project proposal					
3-1-2 Explanation of renewable energy generation by DIT, DPC and CPC			- Increased understanding by people					
3-1-3 Set-up of executing committee (government staffs and local residents)			- Workshop					
3-1-4 Preparation of proposals for electrification by use of renewable energy			- Proposal					
3-1-5 Installation of equipment and technical transfer of operation and maintenance			- Off-grid type equipment					
3-1-6 Establishment of operation, maintenance and monitoring			- Improvement of O&M efficiency					
O&M of off-Grid typed Power Source with Local People’s Participation								
4-1 Establishment of Operation-Maintenance Systems and Preparation of Guidelines								
4-1-1 Workshop on operation and maintenance carried out by local people			- Workshop					
4-1-2 Preparation of operation and maintenance manual (daily, emergency time)			- O&M manual					
4-1-3 Technical workshop on operation and maintenance			- Acquisition of techniques					
4-1-4 Savings for repairing by local people(establishment of collective system)			- Replacement of equipment by people					
4-1-5 Construction of protection and reinforced facilities for equipment			- Facility to protect from wind and rain					
Inputs								
1. Experts on			2. Equipment and materials					
1-1 Social development			2-1 Equipment and material for generation and distribution					
1-2 Renewable energy power generation			2-2 Cost for wind and rain protection					
1-3 Compilation of O&M of manual			2-3 Monument and tree-planting					
1-4 Environmental			3. Expenses for workshop					
1-5 Participatory development			4. Manual and teaching materials					
1-6 Project evaluation and monitoring								
Recommendations								
1. Off-grid type power development by use of renewable energy shall be fully discussed and coordinated with responsible staffs in each province, taking into consideration an existing situation that each province has a different way of dealing with renewable energy.								
2. Off-grid type power sources will be independently developed in non-electrified areas far from the national power grid. Major tasks of this project is to focus on exploitation and application of renewable energy sources being available within target village areas .								
3. Study on micro-hydropower generation will be valuable; for example a study of possibility to have a multipurpose project in combination with irrigation and water supply.								
4. Selection of a off-grid type greatly depends upon local people's financial capacity and willingness to pay for electric charges as well as technical constraints. Prior to selection, people must be explained about the project so that their willingness to pay the electric charges can be confirmed								

Sector	Capacity Building for Public Administration		
Program	Capacity Building Program on Rural Development Management		
Action Plan	Formulation of 5-Year Agriculture and Rural Development Plan		
Implementation Period	1 year		
Target / Area	One person/officer from each division of the administration section (consisting of 5 divisions; administration, planning and investment, etc) and the service section (consisting of 6 divisions: agricultural extension, forestry, irrigation and water, etc.) in the 4 Provincial DARDs in the Northwest Region. 11 persons/officers per province x 4 provinces = total of 44 persons/officers		
Implementation Agency	DARD and DPI of the 4 provinces of the Northwest Region	Agencies Concerned	DPI, DARD

Objectives

Formulation of Community Development Plan (CDP) was carried out in 32 selected communes in all the districts of the 4 provinces under a JICA scheme. After the completion of all the CDPs, CDP Review Workshop was held in each province in which provincial and district DARD staff and DPI staff participated. In the workshop, consensus was made on 1) importance of development plan formulation using participatory development method and 2) promotion of human resource development program on participatory development.

Against such background, this program aims for capacity development of those who are to manage development projects with a comprehensive perspective. After the capacity development, they are to use participatory methods in formulation of provincial agricultural development plan, implementation of its activities, and monitoring the activities in a democratic manner, reflecting the views and opinions of the local residents. Four (4) types of capacity development are to be carried out; 1) comprehensive understanding of development activities in the province, 2) formulation of provincial agricultural development plan which is to be the basis of SEDP, 3) monitoring and evaluation of development projects, and 4) participatory development methods for agricultural development planning. Capacity development in this program is not carried out in a class-room setting where the participants must memorize theories written on a textbook. Instead, participants are to learn things through experience by taking part in actual work for one year. Activities of this action plan are summarized as follows:


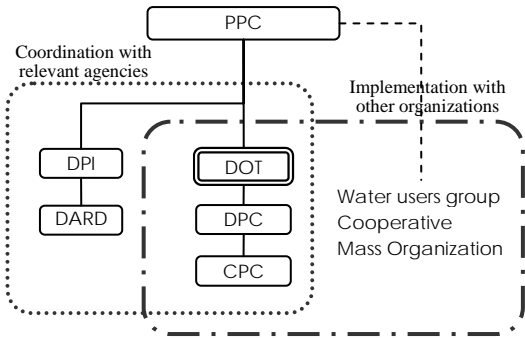
1) Although many development projects are carried out by the Vietnamese government, NGO and international agencies in provinces, no local government offices/agencies keep and manage comprehensive information on all the development project activities taking/took place in their province. Collection and organization of information on development activities in a province is a valuable task that can lay the base for agricultural development planning.

2) After a thorough understanding and analysis of the SEDP 2006-2010's agricultural sector, objectives of the agricultural development for the following 5 years are to be set. The objectives are to be realistic and grounded in the actual agricultural conditions of the province. Based on the objectives, sub-sector development plans, plans for agricultural infrastructures, extension services, local industries, farmers' organizations, and their budgets and staff (personnel) are to be set up.

3) Monitoring and evaluation, an important task in project management, is one of the stages of project cycle. Monitoring framework is to be developed which examines the implementation progress and checks the effectiveness of projects formulated in the above 2). As GIS is widely acknowledged as an effective tool for monitoring, coordination with the following program, 8.2 Rural Information Management Program may take place.

4) In Vietnam, development projects are supposed to be carried out under government decentralization with participation of local individuals. Despite that, participatory development has not been well established as it is understood only superficially by those concerned with development work.

In this program, participatory methods are used in agricultural development planning, and public consultation meeting. In the consultation meeting, key farmers, district and commune staff, those from donors and NGOs, etc. are to voice their opinions on the draft provincial agricultural development plan. The result of the consultation meetings is to be reflected in the final draft.

Project Area: Northwestern 4 Provinces	Organizations
	 <p>PPC: Provincial People's Committee DARD: Department of Agriculture & Rural Development DPI: Department of Planning & Investment DOT: Department of Transport DPC: District People's Committee CPC: Commune People's Committee</p>

Project Summary		
Overall Goal - DARD staff manage agricultural development projects in their province in a sustainable and comprehensive manner while perceiving a project as being made of different stages such as planning, implementation, monitoring and evaluation.		Outputs 1. Development projects in each province are organized/ systematized 2. Provincial agricultural development plan for SEDP 2011-2015 is formulated 3. Monitoring framework for agricultural development plan is established 4. Agricultural development plan is formulated, using the participatory method
Project Purpose 1.DARD staff understand rural development activities in the province in a comprehensive manner 2. Capacity of DARD staff on agricultural development planning is enhanced 3. Knowledge of DARD staff on monitoring and evaluation of development projects is improved/enhanced 4. DARD staff learn/internalize participatory development		
Activities	Reports and Materials	Annual 1
1. Capacity Development on comprehensive understanding of development projects/activities in a province 1-1 Establishment of a list of development projects/activities in a province 1-1-1 Baseline study on development projects by Vietnamese government, NGOs and international organizations 1-1-2 Organizing development projects taking place in a province	<ul style="list-style-type: none">- List of development projects, reports- Organizing development projects, understanding its significance- Direction of development projects, comprehensive understanding	
2. Capacity development on agricultural development planning 2-1 Understanding of formulation of methods for agricultural development planning 2-1-1 Review and evaluation of the agricultural sector in SEDP 2006-2010 (Analysis of problem structure) 2-1-2 Establishment of development objectives for the formulation of SEDP 2011-2015 2-1-3 Establishment of development objectives for each sub-sector (crop, animal husbandry, fishery, forestry) 2-1-4 Formulation of agricultural infrastructure plan (irrigation, rural water, rural electrification through the use of renewable energy, market) 2-1-5 Formulation of agricultural assistance service implementation plan (extension of agricultural technique, test and research, financial service, information on marketing and distribution, livestock health, fingerling, etc.) 2-1-6 Formulation of local industry promotion plan 2-1-7 Formulation of plan to strengthen/develop farmers' organization 2-1-8 Formulation of other plans for agricultural development 2-1-9 Calculation/Assessment of development investment and operating budget for the agricultural development plan 2-1-10 Establishment of plans of organization and staffing for the agricultural development plan 2-1-11 Compilation of the final draft of agricultural development plan	<ul style="list-style-type: none">- Development plan, report- Understanding of agricultural sector in SEDP; its position and contents- Confirmation of direction of agricultural development in the province- Organization and acknowledgement of ways to fulfill the above development objectives- Understanding the connection and balance among plan, budget, and staffing- Understanding of democratic formulation method of development planning (that includes the result of the consultation meeting)	
3. Capacity development on monitoring and evaluation 3-1 Establishment of monitoring framework 3-1-1 Review/confirmation of monitoring in a project cycle 3-1-2 Establishment of monitoring framework for the 2011-2015 Agricultural development plan	<ul style="list-style-type: none">- Monitoring framework, report- Acknowledgement of significance of monitoring- Establishing items for moniotring of the development plan	
4. Capacity development on participatory development method for agricultural development planning 4-1 Formulation of agricultural development plan through the use of participatory methods 4-1-1 Review/Confirmation of participatory development planning method 4-1-2 Review of district agricultural development plans in a province 4-1-3 Holding public consultation meeting on draft agricultural development plan	<ul style="list-style-type: none">- Report and records of the consultation meeting- Understanding and mastery of participatory planning method- Comprehensive understadning of district development plan- Experience of the use of participatory development planning method	
Inputs		
1. Experts on 1-1 Agricultural development planning/project management 1-2 Participatory development 1-3 Monitoring and evaluation	2. Cost for workshop and training 3. Teaching material, manual 4. PC, Internet equipment 5. Cost for research and analysis	
Recommendations		
1. Local consultants who specialize in training on development assistance and project management are to be employed as experts on the donor side, if possible. 2. Development plans should be carefully planned with much attention to the consistency with the national plan. 3. Capacity development on monitoring focuses on theories such as significance of monitoring and relationship with development plan. Actual monitoring methods are to be treated/taught in the Rural Information Management Program. 4. As the Northwest Region is characterized by its diverse ethnic groups and cultures, diverse population should participate in the public consultation meeting (ethnic group, gender, upland farmers, lowland farmers, village elders/opinion leaders, etc.). The meeting should be facilitated carefully so that specific participants such as officials and men do not dominate the discussion.		

Sector	Capacity Building for Public Administration		
Program	Capacity Building Program on Rural Development Management		
Action Plan	Northwestern Region GIS Establishment Project		
Implementation Period	6 years		
Target / Area	Phase I; Dien Bien Province Phase II; The Northwestern region 3 Provinces (Hoa Binh, Son La and Lai Chau Province) The target group: Residents and Government officers of the Northwestern region.		
Implementation Agency	NIAPP	Agencies Concerned	MARD, MPI, MOLISA, CEMMA, and Donors (UNDP, AusAID, World Bank, etc.)

Objectives

This action plan is divided into phase I and phase II as Capacity Building of Monitoring and Evaluation in the Poverty Reduction Programs in the Northwestern region. This plan aims at establishment of a unified information system for monitoring and evaluation of the program, development of the Project Cycle Management (PCM) method from project planning to evaluation stages, and development of human resources, which should manage and maintain the system. Phase I takes up Dien Bien province as a pilot project area to establish the system and expand it another 3 province in Phase II study. This action plan is executed through the following processes;

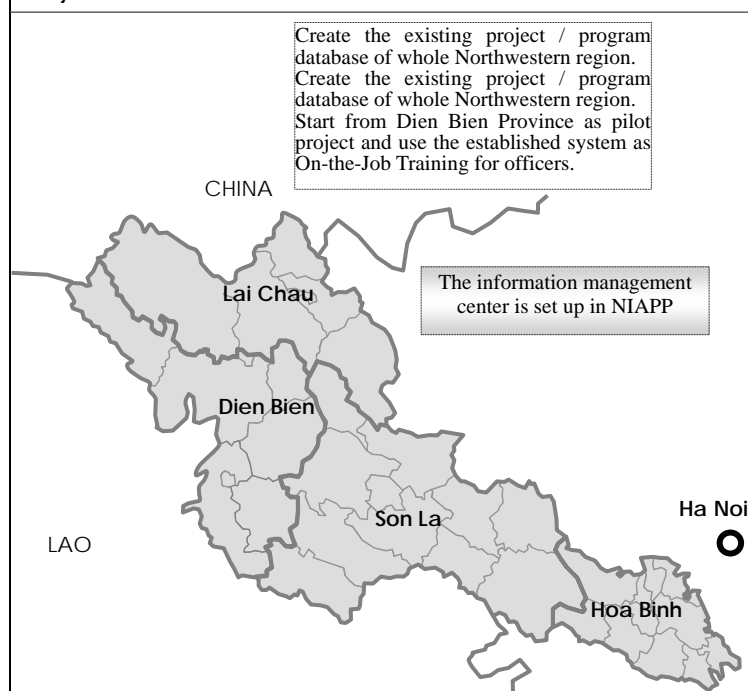
1. Survey for the Existing Poverty Reduction Programs (Phase I-1); Due to lack of monitoring and evaluation system with well-organized basic information of the programs, the impacts and effects of the programs are not sufficiently assessed, although a lot of poverty reduction programs have been implemented so far. In phase I, basic information of the past and on-going programs should be collected and managed through creating the centralized program database according to the following steps in Dien Bien province as a pilot project. Consideration of the survey method, Field surveyer training, Data collection in the site and from other donors, and Verification of collected data.

2. Establishment of Method for Program Monitoring and Evaluation (Phase I-2); There has been no standard for post-program management and monitoring and evaluation, which seems not likely to enable some facilities to be utilized by the beneficiaries. In phase I-2, the PCM method will be introduced in order to manage the programs from planning to monitoring and evaluation in the post-program stage. In phase II, a centralized information system for the poverty reduction program will be established using GIS. It aims at an effective monitoring and evaluation of the programs through providing the O&M training for the system use.

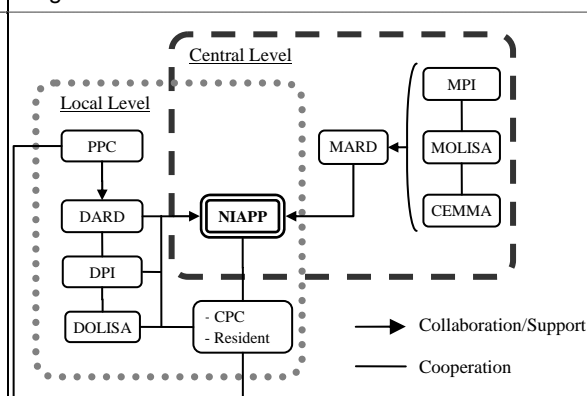
3. Capacity Building for the Poverty Reduction Program Management (Phase I-3); There has been a lack of institutional framework for coordination between line ministries and the province in running the monitoring and evaluation tasks. In addition, it is of understanding that the impacts and effects of the program is not sufficiently assessed due to lack of M&E system and insufficient capacity of officers. Therefore, the framework of the management system in terms of organizational approach will be examined and established. Then, assistance for capacity building (human resource training) will be provided to the the system administration (NIAPP) and the system user (DARD).

4. Expand another 3 Provinces (Phase II); The established system in Phase I for Dien Bien province is expanding to another 3 provinces. In addition, the verification and improvement of system are done in this phase.

Project Area: Northwestern 4 Provinces



Organizations



NIAPP: National Institute for Agriculture Planning and Projection
 PPC: Provincial People's Committee
 DARD: Department of Agriculture & Rural Development
 DPI: Department of Planning & Investment
 DOLISA: Department of Labor Invalid and Social Affairs
 CPC: Commune Peoples' Committee
 CEMMA: Committee for Ethnic Minority and Mountainous Areas

Project Summary						
Overall Goal <ul style="list-style-type: none">- The Poverty Reduction Programs in the Northwestern region are properly operated and managed.- The administration capacity of government officers is improved. Project Purpose <ul style="list-style-type: none">- M&E system for the Poverty Reduction Program is established in NIAPP as a central agency.- The centralized information system of the Poverty Reduction Programs is established and properly managed from project planning to evaluation.			Outputs <ol style="list-style-type: none">1. The poverty reduction programs database is created, then current conditions of past projects implemented by Government and donors are clarified.2. The centralized information system of the Poverty Reduction Program is established.3. The Project Cycle Management method is adopted to the project management from the planning to project evaluation stages.4. The administration capacity of the Northwestern officers are improved.			
Activities			Reports and Materials		Annual	
					1	2
					3	4
					5	6
1. Existing Poverty Reduction Program Survey <ul style="list-style-type: none">1-1 Consideration of the survey method1-2 Field survey training1-3 Data collection of existing / on-going poverty reduction projects / programs1-4 Information collection from donor organizations1-5 Verification of collected data			<ul style="list-style-type: none">- Survey Manual- Workshop/Training- Poverty Reduction Program D/B (ODA and Government programs)			
2. Poverty Reduction Program Monitoring and Evaluation <ul style="list-style-type: none">2-1 Establishment of the Poverty Reduction Program Management System(Phase I)<ul style="list-style-type: none">2-1-1 Consideration of the framework of Poverty Reduction Program Management2-1-2 Training of the Poverty Reduction Program Management2-1-3 Making manual of the Poverty Reduction Program Management2-2 Establishment of the Poverty Reduction Program O&M System (GIS) (Phase I & II)<ul style="list-style-type: none">2-2-1 Consideration of the Poverty Reduction Program O&M System2-2-2 Establish of the Poverty Reduction Program O&M System2-2-3 Training for usage of the Poverty Reduction Program O&M System2-2-4 Making Manual of the Poverty Reduction Program O&M System						
3. Capacity Building of the Poverty Reduction Program Management <ul style="list-style-type: none">3-1 Capacity building of the project management: System Administrator (NIAPP)(Phase I)<ul style="list-style-type: none">3-1-1 Establish of the Project Cycle Management method3-1-2 Training for the system usage3-1-3 Training for the system operation and maintenance3-2 Capacity building of the project management: System User (DARD) (Phase I & II)<ul style="list-style-type: none">3-2-1 Training for the Project Cycle Management3-2-2 Training for the system usage			<ul style="list-style-type: none">- Start-up of study committee- Encourage broad use of system- Manual, textbook			
4. System upgrade and expand system to another 3 provinces <ul style="list-style-type: none">4-1 Skill-Up for the Poverty Reduction Program, PCM (Phase I & II)<ul style="list-style-type: none">4-1-1 Database Creation by using established system4-1-2 Plan and review of new poverty reduction programs4-1-3 Monitoring and evaluation of existing program by using established system4-1-4 Consideration of the monitoring and evaluation framework4-1-5 Verification and improvement of Poverty Reduction Program Management System						
Inputs <ol style="list-style-type: none">1. Experts on<ul style="list-style-type: none">1-1 Team leader/Rural development expert1-2 GIS/Monitoring expert1-3 Economist/financial expert1-4 Participatory development expert1-5 Institutional expert			<ol style="list-style-type: none">2. Materials<ul style="list-style-type: none">2-1 Materials for data collection of existing programs2-2 Materials for development of database2-3 Materials for system operation and maintenance3. GIS System (established by sub-contract basis)4. Training cost (seminar, field trip, etc.)5. Survey cost of existing poverty reduction program			
Recommendations <ol style="list-style-type: none">1. It is necessary that the overall support should be provided in cooperation between related line ministries.2. The study committee should be started up at early stage of this program thereby clarifying the institutional arrangement in roles and responsibilities of each organization.3. The Project Cycle Management method should be introduced to the project to establish the centralized information system, which provides comprehensive project management framework.4. It is necessary to conduct a fact finding survey on the poverty reduction programs implemented in the Northwestern region in consideration of the database creation with GIS application. It is also necessary to evaluate the facility / infrastructure conditions to establish communication channels so that commune residents can judge and report those of present conditions.5. The system should be established through close consultation with the system developer, administrator and users. Then it can be operated and managed by Vietnam government after the project ends.						