

Institute of Policy and Strategy for Agriculture and Rural Development

RURAL DEVELOPMENT CENTER



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INSTITUTIONALISING POLICY & COOPERATION OPPORTUNITY FROM AGB/2008/002PROJECT



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I. OVERVIEW OF AGB 2008/002 PROJECT

1.1 Project aim, target:

- The project aim of AGB/2008/002 project to increase smallholder engagement in competitive value chain associates with maize and temperate fruit based farming systems while improving land and crop management practices for the development of sustainable and profitable farming systems.

- The main target of this project are smallholder farmers in North West of Vietnam who have recently acquired market access and are in transition from subsistence to commercial agriculture. Detailed targets include:

- Firstly: Establish an understanding of constraints in maize and temperate fruit based farming systems that limit smallholder engagement in profitable markets and identify opportunities to overcome these constraints.
- Secondly: Develop improved farm and value chain management practices to optimise sustainability and profitability in smallholder maize and fruit based farming systems.
- Thirdly: Build a value chain model which attracts small households into more competitive markets to improve their financial situation and soil & crop management.
- Forthly: Evaluate the effectiveness of (1) interventions to existed value chain to improve its operation and (2) soil management methods to prevent soil erosion. This can initiate NGOs and Vietnamese government to build a development strategy such a how to replicate project's successful outcome in a larger scale.

1.2 Project approach

The project is built on a strong systems approach underpinned by transdisciplinary and participatory processes: accessed market value chain, production system approach....

1.3 Project impact

1.3.1 **Scientific impacts:** Due to the geography and the traditional farming customs, farmers from North West of Vietnam are still having a lot of gaps in achieving

agricultural production knowledge and market assessment. This can be a challenge for our project to help farmers apply research results (new techniques) in to their fields. Furthermore, many researches, which aim at increasing market engagement in this area, are mostly in small scale only. Our project then will develop a new approach which will improve managing practices and market engagement for smallholders in highland of Vietnam.

1.3.2 Capacity impact: The project focused on building and improving entire research team capacity which consequently motivated all project stakeholders' appreciation for the opportunity and guidance for inter-institutional collaboration within the context of the project, and have begun to network more intensively beyond the scope of project activities. Many specific training were provided in the area of soil erosion measurement, ethnic issues in research, and participatory research methods. Trained team members then worked closely with farmers to apply new techniques in to our experiments. Project team members have shown enhanced interest and capacity to engage in dialogue with farmers and take farmers opinions into consideration when designing research activities. The contribution of the farmers' perspectives in project planning workshops has been valued positively.

1.3.1 Community impact: *(i) Economic impact can be expressed through (1) farmers' improved income, (2) consumers purchased products with better quality and (3) value chain actors get equitable share. (ii) Social impact: adjust the inequality caused by remote geography; divide benefit equitably amongst all value chain actors and community members' capacity are enhanced to be able to participate in business networks and governments' operations.*

1.3.2 Environment impact: This impact can be seen by the reduction of soil erosion, improvement of soil fertile, and the elimination of bad chemicals especially in fruit base farming systems.

1.4 Other impacts

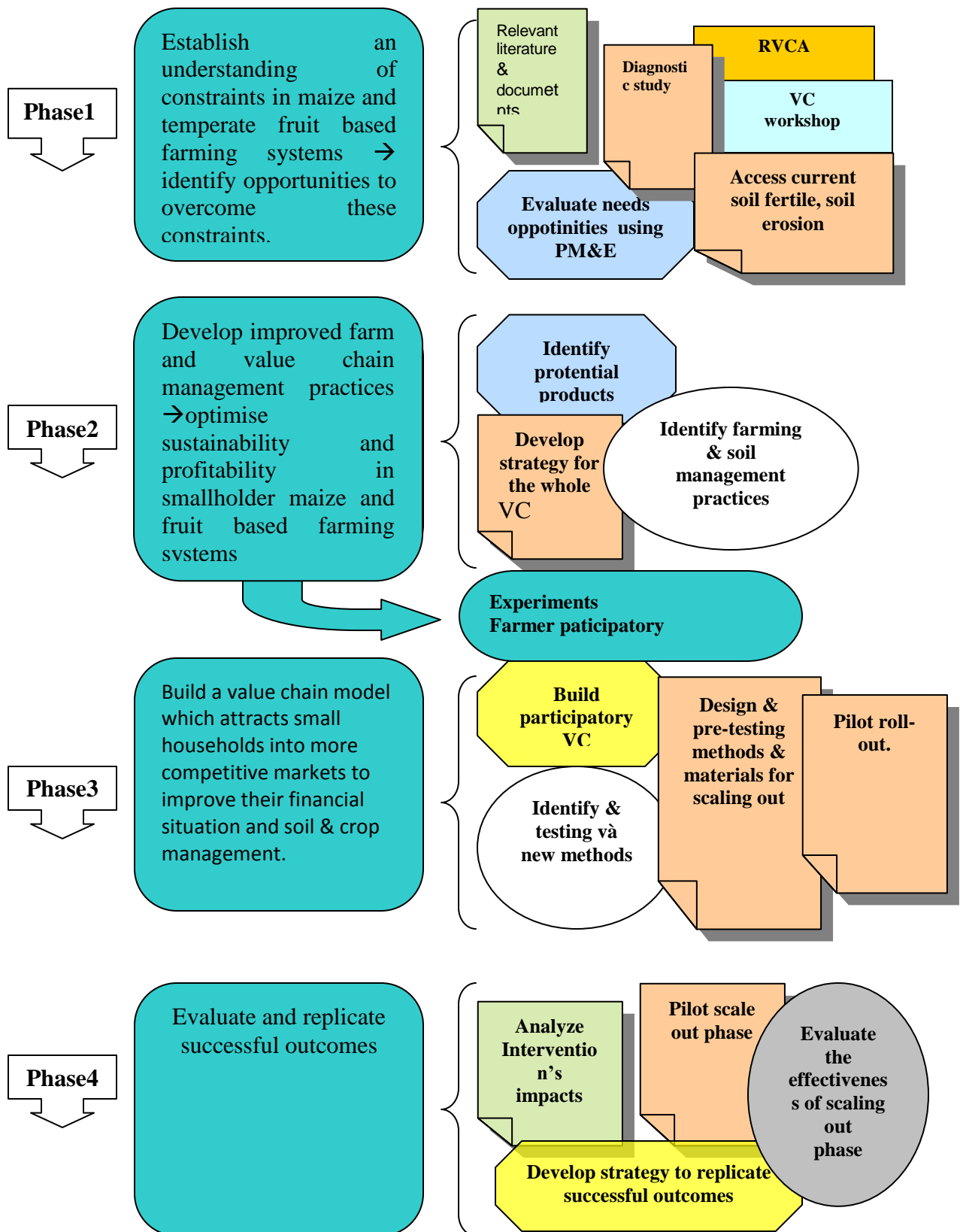
1.4.1. Soil erosion management: Many techniques have been applied to combat soil erosion such as: burning, mulching by dead plants or living plants, creating nimiterrace, intercropping with legumes.... Each area was chosen a suitable treatment to its maize and temperate fruit based farming systems.

1.4.2. Integrated Crop Management

Through all the experiments on farming system, suitable crop along with good models will be identified. This will help farmers improve not only income but also reduce soil erosion.

1.4.3. Develop and analyze value chain: Activities such as value chain analysis, consumers' reaction analysis were carried on to find out recommendations to increase benefit equitably for all actors in the chain. Also, strategies to develop the products were planned to target a more sustainable market engagement.

1.5 Project implementation approach



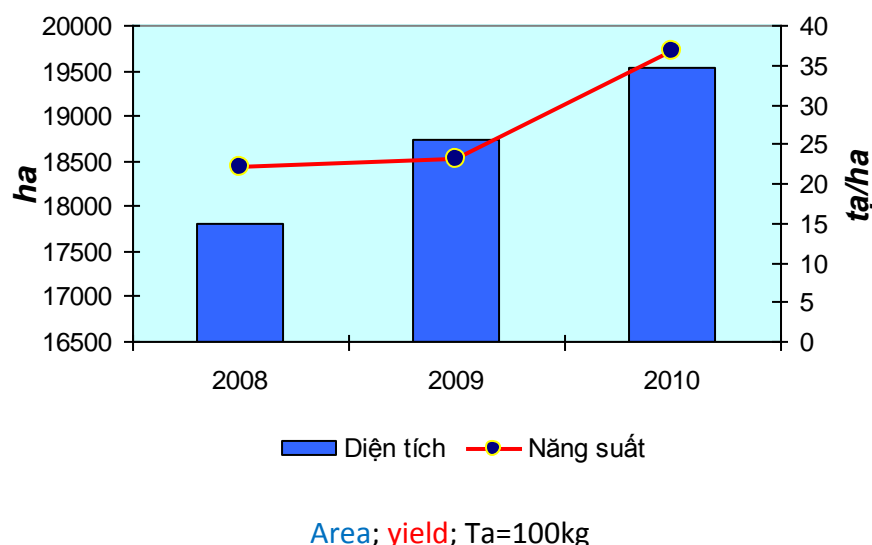
II. POLICY OVERVIEW & DEVELOPMENT PROJECTS/ PROGRAMS FOR MAIZE & TEMPERATE FRUITS IN SON LA & LAI CHAU

2.1. Policy and development program/ project for Maize

Lai Châu

Policy: In Lai Chau, along with rice, maize is identified as a primary crop which helps farmers to reduce poverty. Rice plays an important role in ensuring food security, maize, on the other hand, helps farmers earn cash for daily living expenses. At the present time, total area maize production is approximately 19,500ha with a yield of 49,600 tons/ year (counting for 30% of the total food production in the province). Maize is mostly planted in districts such as Sin Ho (6000ha), Tam Duong, Phong Tho, Muong Te...

Fig. 1: Maize area and maize yield over years in Lai Chau



Despite the important role in farmers' lives Maize plays, as well as the overall development of the agricultural sector in the province; there is no specific policy on developing maize production. Maize production supportive activities are always from national's programs and provincial programs which improve maize production directly and indirectly in the following ways:

- (i) Transfer technologies through extension programs.
- (ii) Support with varieties and inputs of fertilizers for farmers especially to those are poor farmers and minority farmers.

(iii) Reductions or tax exemptions for businesses which applied advanced techniques successfully.

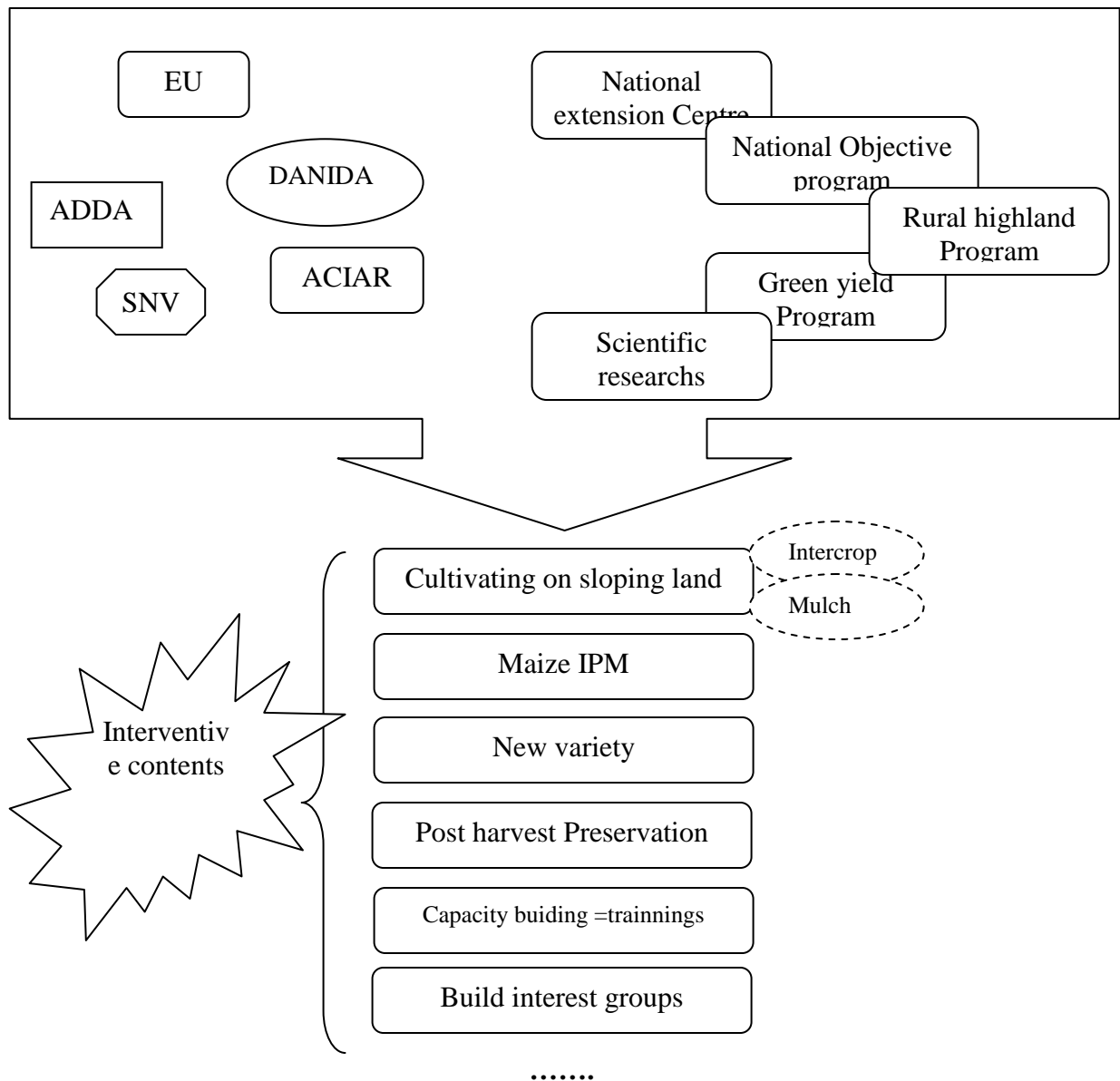
(iv) Develop market

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In order to develop agricultural production in the province, on 31th December, 2010, a policy which supports agriculture, forestry and the fishery sectors was issued for the period of 2011- 2015 in Lai Chau. This is the first comprehensive policy for agriculture-forestry- fishery up to now. Details for agricultural production's support as follows: in terms of variety (hybrid rice, control rice; hybrid maize, hybrid soya bean). Farmers will be supported financially in purchasing variety differently according to their locations: Area 1: 30%; area 2: 60%; area 3: 90%. Evaluation for this policy is yet to be conducted due to the shortage of time.

Programmes and projects on maize

There are numerous programmes and projects which aim at improving maize production in Lai Chau recently. These programmes were conducted by international organizations, management bodies at provincial and district levels. Funds for these programmes have been allocated from different sources such as from NGOs, government bank, or provincial budget. Some programmes have been implemented such as: EU, ADDA, DANIDA, National Extension program, Rural highland program, Green Yeild Program... Besides these big programmes, there are also smaller programmes which focus on maize production. These programmes are included in provincial annual plans or carried on by individual researchers.



Programmes, projects often focus on these aspects:

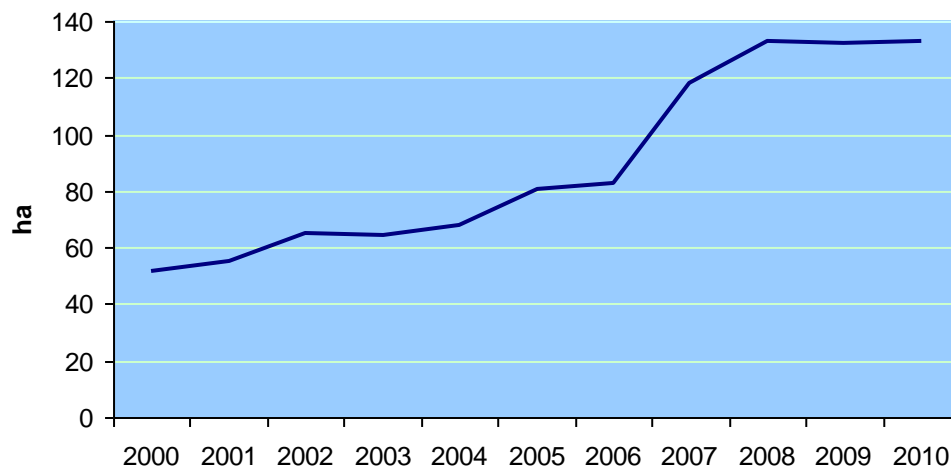
- i. Cultivate on sloping land: this is one aspect which attracts many projects and programs. Soil erosion is such a major risk for farmers while cultivating on sloping land in Lai Chau. Therefore, these projects aim at helping farmers realize the risk, and then will change their traditional farming practices as results. One suggested farming methods to reduce soil erosion is using mulch. This can prevent water run- off on the soil surface. In general, these programs target more sustainable farming practices which will not only help farmers have an increased level of income but also preserve their land in the future.

- ii. Intergrated Pest Managerment: These activities are always carried under the instructions from Plant Protection SubDepartment. These activities were undertaken on maize and crops to help farmers control pests; thus, they can increase the crops' yield and have better quality products.
- iii. Variety: To replace low yield local varieties, hybrid maize were introduced to farmers: CP333, HN88, NK54, MB69, LVN66, LVN885, and LVN09-2....
- iv. Post harvest perservation: Although farmers can have a high- yield crop, they are suffering with great losses from inadequate post harvest techniques. Also, this can affect maize quality. Therefore, suitable techniques for the post harvest stage are tested and introduced to farmers through programmes and projects.
- v. Build interest groups and capacity building through training: These activities are often carried out by NGOs projects. There is almost no interest for this aspect from domestic projects. Through these interest groups, advanced techniques will be transferred. These interest groups will also play a very important role during the scaling out phase.

Son La

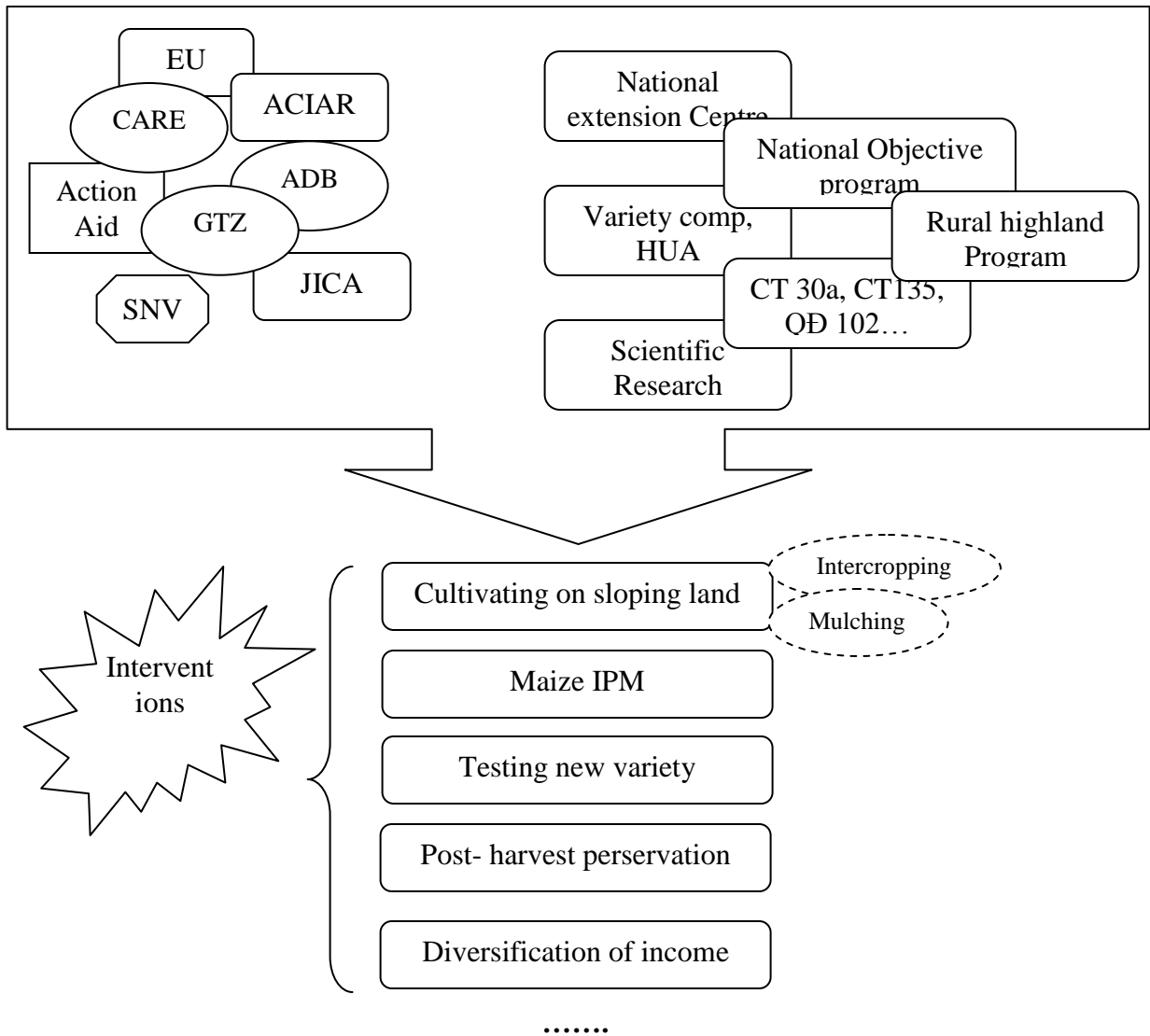
Son La is the province which has the largest maize production area over the years. In 2010, there were 132,000 ha for maize production. In recent years, the maize production area in Son La has increased dramatically. This made maize production more risky for farmers owing to surplus. According to local authorities, a suitable maize production area is suggested from 80.000 – 100.000 ha and hopefully by 2015, maize production area will be decreased to only 72,000 ha; and by 2020 it will be only 57,500 ha. Due to this initiative, it is not suggested that farmers open more land for maize production especially for farming land with the slopes $>15^{\circ}$. Also, farmers are recommended to change from growing one crop per year to two crops per year.

Fig 2: Total maize production area in Son La (2000 – 2010)



Policy: Although maize plays such an important role in developing the agricultural sector, there is no independent policy on maize production. There have been some maize developments- related policies but they are included in national programmes CT 135, CT 30a, QĐ 102 (poverty reduction programmes). Therefore, guidelines on maize development-orientation was put into planning meetings for conferences in People's Councils and People's Party at provincial and local levels.

Projects and programmes: Son La has many favorable conditions for developing maize; however, many difficulties must be faced if a target of a more sustainable agriculture is to be achieved. Son La receives many projects for maize development both domestically and internationally such as: Action Aid, EU, ADB, JICA, SNV, GTZ, CARE...



Intervention activities are quite various but focus on these two main aspects:

- Firstly: Testing new varieties: Many extension programmes as well as local & international companies are trying to introduce new and appropriate varieties to farmers. Because Son La has the largest maize production area in the whole country and so many varieties are provided, companies are testing these varieties in order to find the most suitable type for this area. Foreign companies such as: Bio-seed, Sygenta, Mosanto and Pioneer Brand (accounting for 60% market supply)... Domestic companies include: Northern seed company, Southern Seed company, Maize institute... Besides this, many extension programs are trying to build models to bring good quality varieties to the local farmers.

- Secondly: Cultivating on sloping land: soil erosion is happening very quickly on sloping land where farmers are cultivating on. This causes negative effects to the environment, lowers crop's yield and affects the crop's quality. There are many models on sustainable cultivation on sloping land which have been tested by NGOs, research institutes, and scientific researches. In terms of resolving the bad effects to the environment and yields, these models are quite successful. However, as regards to economic benefits, these models are relatively costly and time consuming; thus, farmers are still very hesitant to apply and replicate these models.

Evaluate the effectiveness of these programmes and projects

** Good effects*

Through some discussions with the State governance agencies, maize- specified institutes and local researchers, some indicators of effectiveness of these projects/ programmes can be drawn as follows:

- Firstly: These projects support farmers to change their inefficient traditional farming practices. Farmers can choose new varieties which have short development periods for the second crops and achieve advanced techniques: applying fertilizer, monitoring their crops, choose suitable density ...

- Secondly: These projects improve the process of socialising and replicating new good hybrids with high yields. There were many factors that help to enhance this process but market factors and these project's impacts played a key role in fastening it. As a result, farmers here change their farming purposes from subsistency to market-oriented. Farmers who live on lower lands gradually used introduced variety too. To conclude, farmers' living standards have risen steadily with the development of maize production.

** Limitations*

Beside some good results, these programmes/ projects still have some limitations which affect its sustainability.

- First and foremost: These projects often are conducted in lower areas (<1000 m above sea level). These areas have more favourable conditions to develop; therefore, these projects only play a role as a catalyst which fastens the developing process. On the contrary, in highland only a few projects were conducted. Farmers here are always

slower in terms of accessing the new variety or market information. So, there is still a problem as regards to choosing a proper project's location.

- Secondly: Intercropping and mulching are good methods to develop maize production for the local area; however, this method is applied by only a small number of farmers. The reasons for this are (1) it will take a lot of time and labourers and money to collect mulch materials then apply them in their fields where as they cannot "calculate" the benefits straight away. (2) Intercropping maize with other plants is also a very good method to reduce soil erosion and increase farmers' income; yet, due to farmer's limited farming skills and seasonal crop organizing skills they don't apply this method either. One example of this is intercropping maize with soya bean. As maize is the main crop here so soya bean has to depend on maize's seasonal calendar. Unluckily, when soyabean started fruiting, it was the rainy season. So, the percentage of soya bean damaged by the rainy season was great. In addition, when farmer's harvest maize, insects from maize will transfer to the soyabean crop; as a result, farmers don't harvest much from soya bean. They don't want to invest a lot in growing soya bean and then not be able to harvest anything from it.

- Thirdly: Techniques for post harvest preservation are also very important and it needs to be transferred to farmers along with farming techniques. However, there are not many projects which are interested in developing these techniques. A common fact in remote areas is that after harvesting, maize was damaged by termites and was difficult to sell.

- Fourthly: Lack of coordination between government bodies, local authorities and the project implementation organizations. This is the weakest point of all the projects and programs. Despite the fact that, many projects have a positive impact on the local area in terms of improving the economy, environment and society, farmers have yet to apply the outcome. Farmers here still have such a low awareness not to mention their reluctance to abandon traditional farming customs, so without government bodies collaboration to disseminate farmers on a large scale, many projects outcomes unsuccessful.

2.2. Policy to develop temperate fruit

The process of fruit development in general and temperate fruit in particular in Lai Chau is very spontaneous because it was farmers who brought temperate fruit varieties to the

region. The total temperate fruit has increased very little over the years. The total volume from fruit is still small from some common fruit: Oranges, Tangerines, pineapples, lychees, longans, and mangos...Fruit production areas are scattered from small household's orchards. In genral, the quantity and quality of temperate fruit in Lai Chau is still low.

Chart 1: Temperate frui area in Lai Châu (2007 – 2009)

| Year | Area (ha) | Harvesting area (ha) | Volume (ton) |
|-------------|----------------------|---------------------------------|-------------------------|
| 2007 | 1.022 | 519 | 3.236 |
| 2008 | 1.207 | 579 | 3.512 |
| 2009 | 1.287 | 662 | 3.650 |

Policy to develop temperate fruit in Lai Chau is still very limited and normally included in the extension annual plan. In 2010, Lai Chau province issued a policy which supported fruit activities for the first time through Decision38/2010/QĐ - People's Committee on 31/12/2011. This decision regulates policies to support the development of agriculture production, forestry and fisheries in Lai Chau province for the period from 2011 – 2015.

Farmers will be subsidised with all the newly young plants for the first crop. For the second crop, if they continue to grow in a larger scale, they will be supported financially following this cost norm: Area 1: 30%; area 2: 60%; area 3: 90% according to markert price. This policy has expressed a strong determination to develop the province's fruit production to market-oriented from small to large-scale area. This can contribute to poverty reduction and also increase income for farmers.

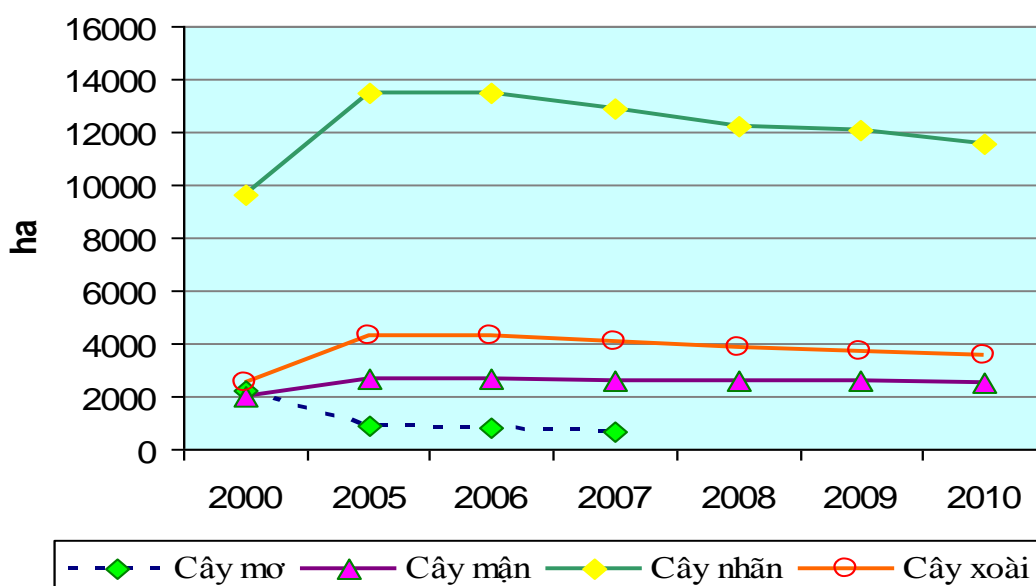
At the present time, fruit production in Lai Chau is minimal in terms of variety and still in a small scale. There have been some new varieties which have been introduced and tested such as French Peach and Crunchy Persimmon, yet are not recorgnized widely by farmers. In general, there are not many programs or projects in Lai Chau which focus on developing the fruit production here. There are a few community development programmes in which fruit production is included but it is reported that as soon as these projects ends, their models end too.

Sơn La

In Sơn La, fruit such as plums, apricots, longan and mangos are amongst the most developed. There are large fruit areas such as Man Hâu in Mọc Châu, Mai Sơn; Longan in Song Ma and mango in Yên Châu, Mường La...

During 2000- 2005, fruit production in this area developed the fastest. Then from 2005 to 2010, this development was slower down due to old orchards with low yield. Farmers then cut down the old orchards and switched to another plants. Recently, some new fruits were introduced in the region: peach, crunchy persimmon in a small scale for testing purposes.

Chart 2: Production area for some main temperate fruit in Sơn La



Apricot, plum, longan, mango

Sơn La province has very favourable conditions in terms of natural conditions to develop fruit production; yet, there is no specific policy for it. As regards to the production stage, all the supportive activities belong to the local production plan or Orchard upgrading plans. As regards to the consumption stage, local policies have been supporting processed companies by leasing land, low interest rates, credit, administrative procedures, personnel training and trade promotion ... This is overseen by the Department of Trade and Industry, although very few businesses invest in the field of fruit processing.

There are some fruit production development programs run by Department of Agriculture, Department of Science and Technology, Provincial Center for Plant Varieties.

III. INSTITUTIONALIZING POLICY FROM PROJECT'S OUTCOMES

3.1. Local partner's role in AGB/2008/002 project

In Lai Chau, DARD and PPSD are partners and are taking these following roles:

** Before implementing our project's activities:*

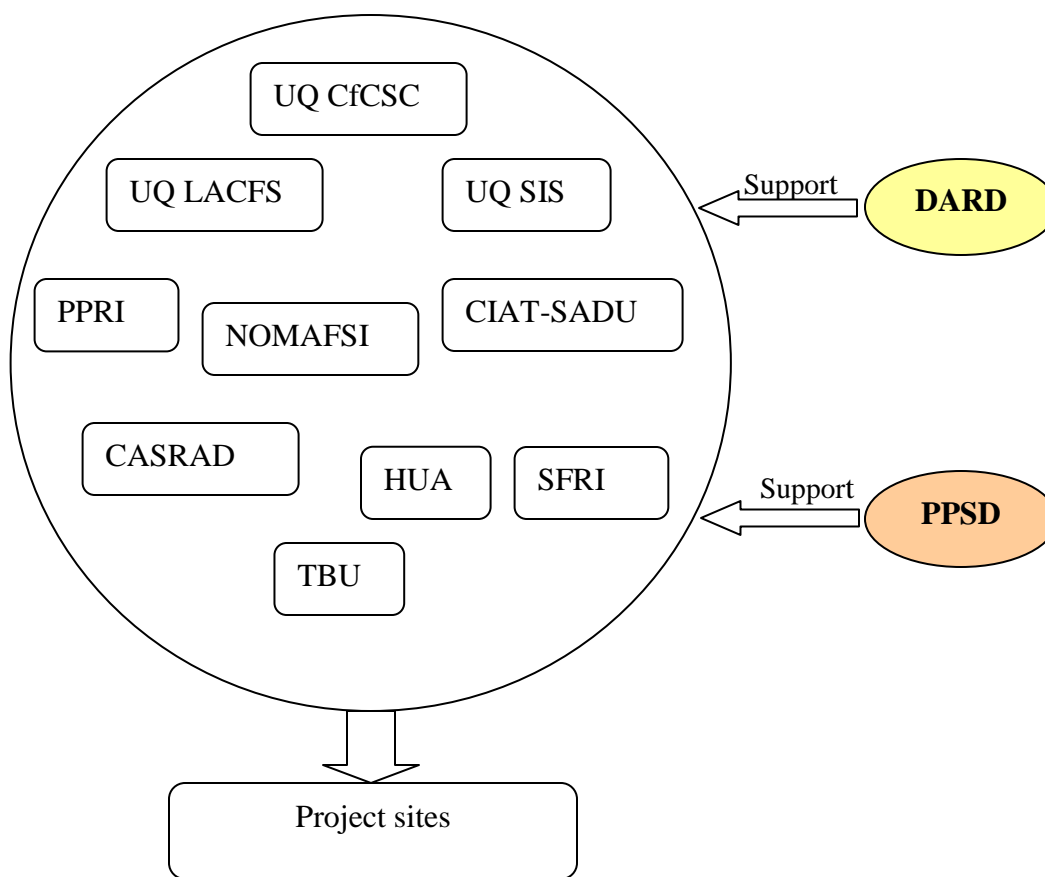
- Participating in identifying project's locations
- Contributing ideas which helped to identify our project's model and targeting subjects.

** During implementation of the project's activities:*

- Supporting with procedures, empowering our project's groups when travel to the fields.
- Collecting data, information for our project when needed.
- Monitoring and handling problems arising when required.

** After our project ends*

- Consulting for DARD and the People Committee on how to make use of our project's outcome to serve the management and policy making process.



3.2. The local's view on our AGB/2008/002 project.

** On the project's aim and objectives*

From the state management organisation's point of view on agricultural development, Lai Chau & Son La DARD consider that: We are welcome and will receive any programs/ projects especially those which target poor farmers, minority groups from remote area because they will help to improve farmers' income. However, the positive impacts from these projects also need to be expressed clearly in terms of improving the local economy, society and environment. These projects' aim should also be suitable with the province's overall aim for development. That's the reason why the local authorities are very welcome and empowering for the AGB/2008/002 project. We have a deep hope that this project will contribute a lot of good models, lessons and experiments to develop maize production and temperate fruit in particular and the household's economy in general.

* *Project's approach and deployment*

AGB/2008/002 project is highly evaluated for its innovative approaches, deployment and related contents:

- ***Transdisciplinary approach with high level of adaptability and flexibility:*** This is the first time for both of two provinces to receive a project which involved many domestic organizations and international institutes. Furthermore, AGB/2008/002 project also applies transdisciplinary approaches with a high level of adaptability and flexibility. It is very potential for the project's outcome to be replicated at a larger scale.
- ***A participatory project with high level of farmer's involvement:*** The project's officials are not in charge of 100% of the workload but share it with farmers. By doing this, farmers will understand more about project's activities and will be capable of continue doing it when the project exits. They also will see more positive impacts brought by the project.
- ***Associate production with market:*** Almost all other projects which were deployed in Son La and Lai Chau, only focused on 1 aspect (support production) but didn't target on the market aspect. However, with AGB/2008/002 project, production and market are associated in parallel so the local authorities evaluate this highly.
- ***Innovative methods for farming practice:*** Many innovative technical interventions are applied during the 3 first phases of the project. There methods are: minimum tillage, new intercropping systems.... Initial assessments for these methods are quite positive.

Other treatments: mulching, respacing density, fertilizer application were applied by a number of other programmes/ projects.

3.3. Several notices for AGB/2008/002 project.

During the deploying process, partners from Lai Chau & Son La provinces have some recommendations for AGB/2008/002 project and other projects/ programmes as follows:

- Firstly: there are many activities to improve agricultural production for the lower areas. However, we think that the market's pull to this area will decide the agricultural development and maize production in these areas will be developed gradually without the projects' intervention. That's why we think that it is more necessary to conduct project's activities in higher areas where farmers are still using traditional farming practices: using local variety with low yield....

- Secondly, it is necessary to invest comprehensively and thoroughly for the Roll-out phase. There were many successful models in many aspects such as: economy and environment; however, it was demonstrated only once. Farmers then could not realize all the good effects of the model after all. So, it is recommended that more farmers need to be involved in the replicating process. Besides this, all the services: fertilizer, variety,....have to be outreached to the community. This will ensure the sustainability of our project.

Thirdly, it is essential to understand the local's traditional farming practices (especially the minority's farming customs). Many projects did not take this into consideration; therefore, when they transferred their techniques, farmers didn't use them as they were not suitable to the local's customs. For example: When the provincial Department of Science and Technologies conducted a model to develop maize production in the minority area. They recommended farmers to cut maize's leaf at the dough period but farmers didn't do it because they thought it would be very time consuming. Or another example is that, when farmers were introduced with a new variety, they were recommended to keep only from 1-2 cobs/ maize but they did not do it.

Fourthly: more activities to improve the post harvest preservation and marketing have to be undertaken. In terms of the hybrid maize, it is very difficult for farmers (who live in remoted areas) to preserve maize and always have to suffer from damages from post harvest. Besides, more marketing activities for fruit need to be carried out here. Due to the short harvest, farmers cannot keep fruit until they can sell them at a good price but they normally have to sell to some local wholesalers who normally pay cheaper than the production's actually value. To conclude, more techniques for post harvest preservation and more marketing activities need to be undertaken.

Fifthly: The coordination between the project's partners and local authorities has to be enhanced. Local organizations consider that this coordination is one of the key roles for the sustainability of the project. However, there is only a very vague coordination.

- + The local organisations' roles are to support/ coordinate all the project's activities. Local authorities are those who understand clearly about the local agricultural system, and farmers' traditional practices, also difficulties that project teams might encounter. The thing is they are not directly involved in the projects' activities. This is also a disadvantage with our project.

- + Lack of coordination, discussions between the project team and local organizations: there were some activities which the local officers were informed in advance and could arrange their time to join with the project's team. There were also many activities which the local authorities were informed of, but which were without any notice so we could not participate in. Also, this causes a lot of difficulties for the leaders to (1) arrange task to his officers and (2) consult proper policy for the province.

- + Low allowance: the budget for each province is 30 million and is divided into 2 payments. Local officers don't receive the allowance directly but after many steps; so when they receive it, it is only 200.000VND/ day. So it is unlikely to motivate them to take over all the responsibility for a low allowance.

3.4. Recommendations and solutions to enhance the effectiveness of AGB/2008/002 project.

Both Lai Chau and Son La province share an opinion on the compatibility between the project's aim and the province's development plans. In order to enhance the effectiveness and replicating possibility, we have to take some points into considerations:

1. *Strengthening the role of local authorities in the project:* Our project can only be called successful if its models are replicated. That's why it is very essential to involve the local authorities especially DARD, Extension Centre, Farmers association, Women union.... They will take the role of transferring advanced techniques. They need to participate directly in the project. When their roles

and responsibilities are improved, they will bring positive changes to the project.

2. *Enhancing information exchange and project progress exchange:* There is a lack of information exchange between the project's partners, so stakeholders don't know about the project's progress and results. This limitation happens in both provinces and put the local partners in a very inactive position. Therefore, there is a need to improve the information exchange between partners.
3. *Identify the main local partner who will directly participate in the project's activities:* At the present time, DARD is the organization which arranges officers to participate in the project. Nevertheless, sometimes, due to short notice, we can't arrange permanent officers *to join and some appointed officers don't understand about the project are used. Thus, this causes inconsistency and ineffectiveness. Thus, it is recommended that we should identify who are the main local partners? From which organization? What are their responsibilities? What are their benefits?*
4. *Improve advocacy activities:* It is very time consuming and very hard to change farmers' obsolete farming practices. We will have to use both demonstrations and advocacy activities following a systematic campaign. Other means of mass media are also very good tools for advocacy.

3.5. Institutionalizing policy from the AGB/2008/002 project's results

Almost no policy was institutionalized from previous programmes and projects; thus if we can recommend policies which are suitable to the local economic situation, it would be very sustainable. There are some suggestions to take into consideration as follows:

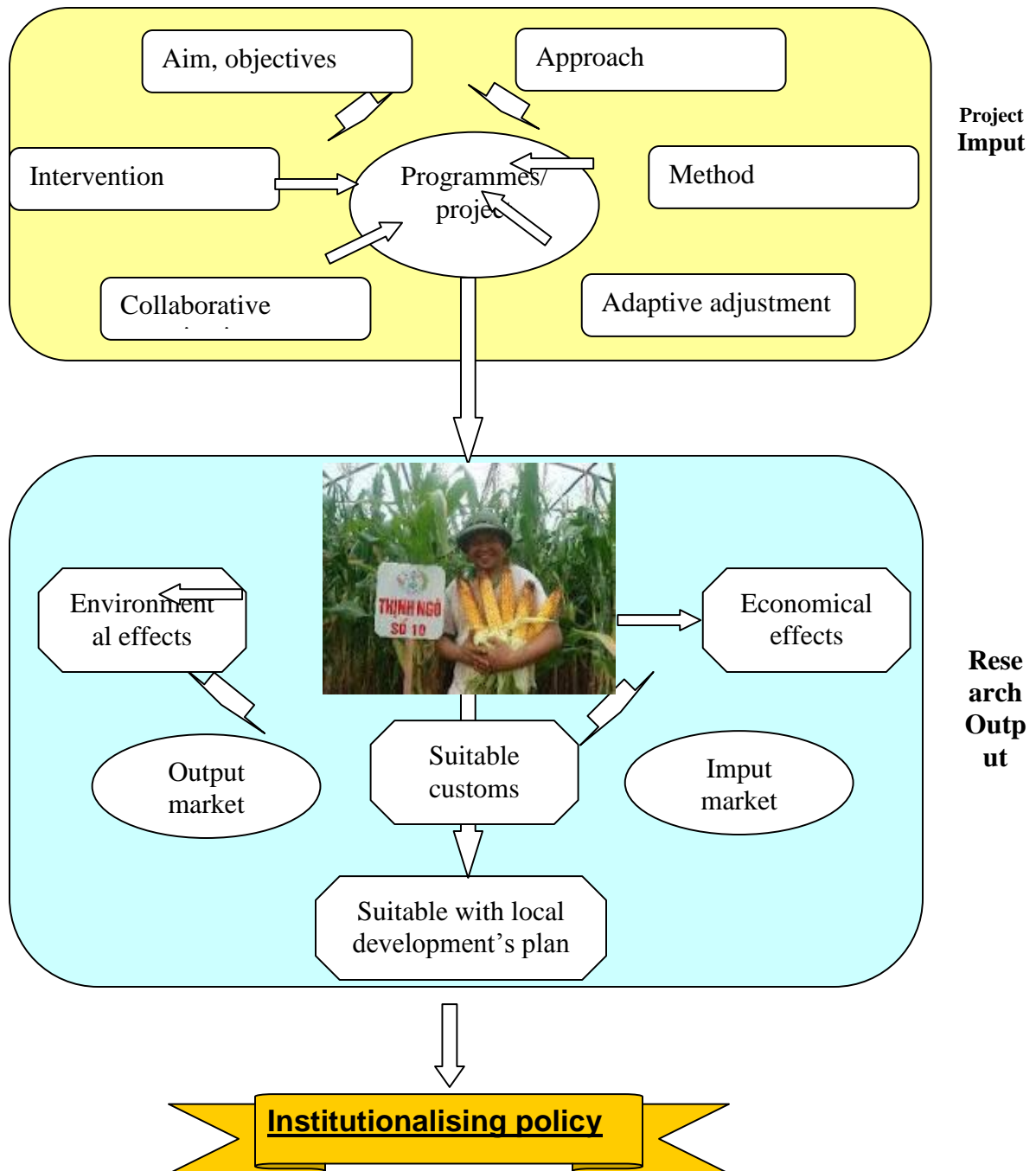
1. The project's aims and objectives are suitable to the local development plan: this is the content that projects need to consider first and foremost before deploying. Suitable projects will then receive a lot of support from local authorities and local farmers.

2. The model of project's cooperation and coordination is feasible in accordance with local conditions: There are many types of collaborative models available in each

project, depending on the project's objectives, fund and local conditions. Therefore, it is very important to identify a suitable collaborative model. The applied model: Public Private Partnership (PPP) is said to have many advantages that can achieve successful outcomes for our projects.

3. In order to build a successful project model, we also have to understand more about the market. Activities which help to develop agricultural production have to be carried out in parallel with market engagement activities. If farmers can have a sustainable income it will motivate farmers to continue with our models. Market research needs to be conducted at the 1st phase of a project because it will then help us to orient production-support activities.

4. Other factors such as traditional customs and environment are also very important and need to be considered during all phases of the project. For minority groups located in remote areas we also have to understand well the above-mentioned factors because their farming practices are not sophisticated. They normally cultivate on high steep slopes where soil erosion is a risk for farmers' livelihood so if we understand their custom, it would be easier for them to follow us.



IV. OPPORTUNITY TO COOPERATE WITH LOCAL PARTNERS IN THE PROJECT

4.1. Local partner's functions and responsibilities

In both Lai Chau & Son La provinces, there are many local organizations evolving in maize & temperate fruit-related activities. These organizations such as: Extension Centre, PPSD, Horticulture Department, Department of Agriculture, Department of Science and Technology, Women's Union and Farmers Associations are very capable of implementing AGB project's activities.

1. *Extension Centre:* is a unit of the Department of Agriculture and Rural Development and is responsible for (i) disseminating Information such as: communication strategies and policies of Vietnamese Government, advanced technologies, market price information, Socialist models, models in agricultural production, management, business, agriculture and fisheries. (ii) giving advice and proposals to the Department of Agriculture in order to promulgate policies, program approval and extension projects to assist farmers in implementing activities for the process of restructuring plants and livestock. (iii) building capacity, and training: Open training centers and workshops to raise farmers knowledge of production skills, economic management and marketing in two fields: agriculture and fisheries. (iv) building & transferring technologies: make demonstrations of advanced technologies which are suitable to the local conditions, then replicating successful demonstrations in a larger scale.

(v) Consulting on services and international cooperation plays a linking role allowing organizations and individuals to meet the needs of farmers and supply agricultural and technical materials according to economic contracts. Participation in agricultural and fishery activities by international cooperation projects will help pass on information gained in these projects to other organizations and individuals.

Plant Protection Subdepartment: (i) Develop and propose recommendations to the Department of Agriculture on long-term plans, annual programs/projects and policies, mechanisms and activities for cultivation and plant protection in accordance with local conditions. (ii) Publishing professional guidelines on specialized services/sectors under the

assignment of the Plant Protection Department, Horticulture Department and Director of the Department of Agriculture. (iii) Guidance inspection and responsibility for implementing activities required by legal documents on plans, programs/ projects, standards, procedures, regulations, approved fund costs and law dissemination....within PPSD's management,

(iv) In terms of plant protection activities: 1- Monitoring, inspecting, identifying, forecasting pest/ disease occurrence, then consulting with DARD and Peoples' Committee to disseminate information about the epidemic or repeal epidemic. 2- Being in charge of taking State management activities such as domestic quarantine and fumigation operation following law 3 – Herbicide management at provincial level. (v) In terms of horticultural activities: 1- Periodically formulate and direct activities on reviewing and evaluating plans for focused plant production areas . 2- Direct activities to develop and to test performance of developing focus plant production areas of the province following good agricultural practices (GAP). 3- Direct the seasonal plant's structure implementation 4- Develop, promulgate and give guidance on technical process of farming; propose measurements to overcome natural disasters and pests on crop production. (vi) Apply and transfer advanced techniques for horticultural activities, for plant protection, for extension activities and others tasks..

2. *Horticultural Department:* is a technical division in DARD. It is responsible for consulting provincial leaders on state governance activity on horticulture. In detail: (i) Participating in developing and implementing plans on seasonal, annual and long term agricultural production. It also presides or participates in developing programs, project's subject, and carries out technical processes assigned by the Department of Agriculture. (ii) Organizing and implementing activities, giving instructions, monitoring process activities included in horticultural plans from approved legal documents. (iii) Participating in formulation and implementation progress, reporting statistical production, reviewing and evaluating seasonal and annual plans. (iv) Directing activities following structured production plans,

horticultural procedures, also giving recommendations on overcoming natural disasters...

3. *Department of Science and Technology*: (i) Selecting and evaluating scientific tasks, developing technologies, managing key scientific and technical missions at the state level. (ii) Guiding and managing the technology transference activities in the area, including: transferring and evaluating technologies, identifying price and appraising technologies, playing a role in brokerage, consulting for techniques used in the transferring process, evaluating projects and plans to develop society and economy. (iii) Organizing activities to promulgate information about newly advanced technologies, carrying out scientific & technical statistics activities, developing technology markets, guiding other organizations on how to provide information to the public, upgrading infrastructure and holding workshops on transferring technologies...
4. *Farmer Association*: is a political and social organization belonging to farmers . This association is responsible for supporting and training its members to enhance their ownership and broaden their knowledge, skills. (i) Inform and train their members about the government's strategies, policies, and state laws, organize workshops and provide training to improve their members' skills in agricultural production activities, share experiences with each other about business. (ii) Support its members to organize competitions for developing farmers' economic culture in order to build cultured households. All members will also take part in many fun activities to improve their spiritual lives. Make sure that its members all actively participate in the planning process and implementation of policies, development programs and improve the farmer cooperative's economy. Farmers here also organise activities to support others with finding accessible services, make sure that they all take advantage of their citizens' rights and obligations such as protecting the nation's security.
5. *Women Union* is in charge of six keys tasks as follows: (i) Improve women's awareness, education level and skills to meet the Vietnamese women's standard. (ii) Participate in building social criticism and monitor the implementation of laws and policies on gender equality. (iii) Help women to

develop their economic situations, create more jobs for women in order to increase incomes. (iv) Help women to build prosperous, equitable, progressive and happy families. (v) Develop the women's union to make it a stronger organization. (vi) strengthen and expand the union's activities with more international cooperation for gender equality and development for peace.

4.2. Local authorities' experience in participating in projects

In Lai Châu:

**** Extension Centre***

Thanks to the fund from Central & local government, Lai Chau Extension centre has implemented up to 541,35ha of hybrid maize. Beside that, they also took on many testing activities with new varieties: CP333, HN88, NK54, MB69.... We want to help farmers achieve basic techniques in using hybrid maize, fertilizer, and monitor pests as well as guide them on how to access better varieties with high yields and pest resistance. Consequently, we hope that farmers gradually change their bad traditional farming practices. Projects' subjects are local households with enough labourers, capital and must be interested in the models.

In terms of international cooperation, Lai Chau extension centre has cooperated with SVN (*Netherlands Development Organization*) from 2005- 2010 to develop cardamom value chain in Lai Chau. The strength of Lai Chau Extension centre is its wide network from provincial to village level. In addition to that, they also have a strong operation in terms of regular training, workshops and meetings.

**** Plant protection Subdepartment***

Lai Chau PPSD has been involved in many international projects such as:

- + From 2004 – 2005 It participated in EU's project on ICM for Upland rice, maize and soybeans.

- + From 2007 – 20011: Coordinated with SNV to implement IPM on tea through much TOT training, establish IPM clubs, and training in business skills. Also, activities on upgrading old tea orchards were undertaken. PPSD played a role as a consultant to some pesticide/ herbicide-testing models.

The strength of Lai Chau PPSD is focused on monitoring and managing plant diseases and making the demonstrations of same.

*** *Department of Science and Technology***

From 2004 to the present time, *Department of Science and Technology* has done much scientific research and 2 big projects: (1) Maize development program in Than Uyen from Rural Highland Program in which 500 ha of maize was supported. (2) Since 2007, it has involved in Green Yield program which was conducted on more than 20 ha and focused on: Intercropping and processing residues for composting...

*** *Farmer Union***

Farmer Union has many activities to support its members to reduce poverty: make demonstrations, open vocational training centers, support farmers by lending capital through policy banks, contract with business to supply input to farmers... Besides this the Farmer union also cooperated with ADDA on developing a minority community which lives near the border: Open training centers and workshops, form interest groups, make maize demonstrations, and vegetable demonstrations. The strength of the Farmers' union is that it has a fully- functioning network which will be perfect for disseminating information.

*** *Women Union***

Women Union has been involved in many domestic and international projects:

- Bread for the world Project:

+ First period: (from 2008 – 2009): Focused on raising awareness and living standard for people in Hoang Then Village (Phong Thổ district); building capacity for Women Union's members using the fund of 2.245 millions VND. Outcome: after two years, all members's awareness and skills have been raised. They have access to clean water and have become more aware of sanitary conditions. There were less cattle raised freely outside so the road appeared cleaner. All members were trained to participate in project activities better. Women's voices started to have more weight. There was more gender equality in each household.

+ Second period (from 2010- 2011): Continued on maintaining the union's activities; organizing more training activities to improve its members' skills and protect the ecosystem. Many workshops on transferring techniques were also conducted:

embroidery techniques workshop, cultivation on sloping land techniques, nutritious vegetable workshop. Competitions about knowledge of the environment, gender equality and human rights were discussed eagerly amongst members; Members here were aided with water tanks, a rice thresher, a maize thresher and a milling machine. Women could as well attend classes to learn Vietnamese and received gynecological health care.

- *AAV project (ActionAid in Việt Nam) (from 2007 – 2009)*: Improved access to information for women and girls on gender issues: domestic violence and women trafficking.

- *Germany Project: (MSA)*: From 2004 - 2011: VAC (Garden-Pond-Pigsty) project to increase more works; thus, can increase women's income.

- *Canada Project: Funded by Canada Embassy*

- + In 2007: Illiteracy elimination project to improve female leaders' capacity and community leaders' capacity in Lai Chau.

- + In 2008 - 2010: Capacity building and income improving project for poor women in Lai Chau.

- In 2007 - 2008: Samaritans provided blankets, warm clothes for students in Phong Thổ, Sìn Hồ and Mường tè through Women's Union. In 2008 - 2009: In Phong Tho district, a program called "village midwife" was initiated.

The strength of the Women's Union is that they also have a widely organised network with a large number of members.

In Sơn La

*** *Extension Centre***

Extension Centre has been taking part in many projects, both International and domestic in the role of coordinator:

- Collaborated with SNV organization on consulting, formulating extension materials for Son La province.

- Opened workshops for farmers about post- harvest preservation techniques.

- Joined ADB project on sustainable livelihood for farmers.

- Joined GTZ project on sustainable farming on sloping land.
- Coordinated with CARE organization to implement demonstrations on cultivating on sloping land.

*** *Farmer Union***

Apart from joining several programmes funded by the Central Union, Son La Farmers' Union also participated in one international project (Danmark) on minority community development in the highlands of Vietnam from 2006 to the present. This project focuses on maize and vegetable IPM through many demonstrations.

*** *Department of science and technology***

The department of Science and technology is mostly involved in annual scientific research. Besides, they only partly participated in the Rural Highland project funded by the central Department of science and technology. This project focuses on several aspects: cultivate on sloping land (for upland rice), intercropping maize with legumes, mulching and fertilizer application. Several demonstrations on plum, peach orchards from this project have shown in Thuan Chau.

*** *Horticultural Department – Agricultural Department***

Is a key organization in the Agricultural Department and is in charge of taking part in horticultural- related projects. For instance:

- A project on using mulching for maize cultivation in Sông Mã (coordinated with NOMAFSI)
- Project on erosion reduction: coordinate with Hanoi University of Agriculture.
- EU project (2001 – 2005): Cultivate on sloping land using intercropped plants, growing grass in contours and mulching.

4.3. Opportunity Assessment

Almost all local organizations hope to be able to be AGB/2008/002 project's partners. However, as each organization here has different strengths, we can assess the participation opportunities as follows:

Table 2: Evaluate local organizations' strength according to the project' objectives

| | Agri Dept | PPsD | Extension Centre | Farmer Union | Women Union | Dept of Science & tech |
|-----------------------------|--------------|------|---------------------|-----------------|----------------|------------------------------|
| Building demastration | * | ** | *** | *** | ** | ** |
| Pest/ disease management | - | *** | ** | ** | * | - |
| Training/ workshop | ** | *** | *** | *** | ** | ** |
| VC development | * | * | ** | * | * | ** |
| Dissemination | * | * | ** | *** | *** | - |
| System organization | * | ** | *** | *** | *** | * |
| Institutional policy | *** | * | ** | ** | * | - |

- Building demonstration: Extension Centre, Farmer Union
- Pest/ disease management: PPsD can play a key role; extension system can also assist with this activity.
- Training: Extension staff can take the key role fir this activity
- Develop value chain: Extension staff, Dept of Science and Technology
- Dissemination: Women's Union, Farmers' Union
- System organization: Extension staff, Women's Union, Farmers' Union
- Institutional policy: Dept of Agriculture is suitable for the key role, and then the Extension staff can bring the demonstrations into their annual plans to replicate the models and recommend extension policy.

The collaborative model is specified through the following diagram:

