# Out of comfort zones, into realities: research for development with upland ethnic minority communities in North West Vietnam

Elske van de Fliert[a], Pham Thi Vuong[b], Do Thi Minh Hien[c], Pradip Thomas[a] and Oleg Nicetic[a],

[a] *Centre for Communication and Social Change, The University of Queensland, Brisbane, Australia, e.vandefliert@uq.edu.au; pradip.thomas@uq.edu.au; o.nicetic@uq.edu.au*
[b] *Plant Protection Research Institute, Hanoi, Vietnam, tvuong@hn.vnn.vn*
[c] *Academy for Journalism and Communication, Hanoi, Vietnam, hiendtm@ymail.com*

**Abstract**: *The North West of Vietnam, which is characterised by mountainous landscapes and high ethnic diversity, has been lagging behind in agricultural development compared to the lowland areas in the country due to a complex of geographical, institutional and socio-cultural factors. A scoping study conducted in 2008 for the Australian Centre for International Agricultural Research concluded that the overarching limitations to development in these areas are summarised by (1) limited infrastructure restraining people from accessing inputs, information, services and markets, and (2) degrading agroecological conditions due to increased population pressure, unsustainable natural resource management practices and unavailability of suitable innovation. Recent expansion of infrastructure has opened up opportunities for access to markets and, hence, a transition from subsistence based to market orientated agriculture. To contribute to this transition through agricultural research, the study concluded that efforts would need to apply a comprehensive systems approach and be strongly culturally sensitive. Communication mechanisms in support of research for development will need to reckon with existing language and cultural barriers that cannot be overcome by generic development models. Based on these recommendations, a transdisciplinary project was designed and launched in 2009. The project links natural resource and crop management aspects closely with supply chain demands and opportunities, through participatory processes involving eight ethnic minority communities. Planning and implementation of such a research for development approach, however, requires strong commitment and effort from all parties involved to step out of their comfort zone and go the extra mile to make difference.*

***Keywords:*** *North West Vietnam, ethnic minorities, systems approach, participatory development communication*

## Introduction

While rural development in Vietnam has been truly impressive over the past decades, strategies applied emphasising economic growth have mainly worked for communities in lowland areas where farming is well linked into established market and service mechanisms. Ethnic minority communities located in remote and marginal mountainous areas have largely been unable to benefit from the developments as a result of a range of complex factors aggravated by a communication disconnection with the mainstream agencies of development (ADB, 2002). Vietnam has 53 ethnic minority groups, accounting for 12.6% of the total population, who for the greater part inhabit the mountainous areas in the North West and North East regions and the Central Highlands. In 2006, 52% of ethnic minority people were reported to live in poverty in comparison with 10% of the Kinh majority group (The International Bank for Reconstruction and Development/The World Bank, 2009). Main reasons for this disparity are, in summary, differences in assets, capacity and voice. These relate to ethnic minorities having fewer physical (land, capital, credit) and social (education, health, access to services) assets, being mostly located in geographic remote areas with limited physical mobility, and experiencing language and other cultural barriers causing constrained access to information, education, development initiatives and services (The International Bank for Reconstruction and Development/The World Bank, 2009).

Although government priorities have changed over the past years and specific attention is being given to those areas that have lagged behind, development strategies tend to have a strong technological orientation and do not necessarily tackle the needs of the communities in a holistic and condition specific way. While most families rely on agriculture for a living, agricultural research and extension has not yet been able to effectively reach out to these remote communities, partly as a result of the geographical centralisation of agricultural research centres close to the two big cities, Hanoi and Ho Chi Minh City in the lowlands. Moreover, communication methods applied in development initiatives are predominantly targeted to people literate in the national language (Vietnamese) and easily reachable through main roads and/or established ICT channels, hence excluding a substantial proportion of the ethnic minority communities (Van de Fliert et al., 2007).

Agricultural research and extension in Vietnam, which falls under the responsibility of the Ministry of Agriculture and Rural Development (MARD), has recently undergone a major reorganisation (ACI, 2003). A key feature of the reorganisation was the creation of the Vietnam Academy of Agricultural Sciences (VAAS), which serves as an umbrella organisation for over 20 research institutes. Some of these institutes were established on the basis of existing centres while others through the merger of several centres. Although the amalgamations of centres has contributed to a reduction of duplication of research efforts, the system is still biased towards discipline rather than systems oriented research, and towards commodities and conditions typical for the lowland areas. Research funds are for the larger part allocated to industries that strongly link into national economic growth strategies in (peri-)urban areas in the lowlands. Collaboration amongst researchers across disciplines and institutes tends to be limited and linkages between research and extension organisations are particularly poor. Recent initiatives of government and international donor agencies tend to apply a strategy of demand driven research and a pluralistic extension service. Such a strategy is better able to recognise the importance of integration of multiple sectors to match farmers' actual needs for information and technology (CIEM, 2004). Effective implementation of the strategy, however, has met with many challenges, reportedly as a result of initially limited capacities of both local government organisations and communities. This is being remedied since 2006 with the establishment of tertiary education and research institutions located in the mountainous areas the impact of which will become increasingly evident over time.

To effectively address the many interrelated constraints in these culturally diverse, remote and disadvantaged communities, a different approach to research and development is needed. It should encourage strong engagement of communities to enable the development of location and culture specific solutions and mechanisms. This will require a systems perspective, hence transdisciplinary collaboration, and consequently strong communication and capacity building mechanisms.

The Australian Centre for International Agricultural Research (ACIAR) recognised the need for a more holistic approach to research to contribute to development in the North West of Vietnam during the latest formulation of their country strategy with the Vietnamese government in 2007. It was decided to focus their funding support to agriculture research on two regions where poverty has persisted and where Australian agricultural technical skills have an ability to assist in development. These are (1) the south-central coast, with an emphasis on sustainable crop cultivation and livestock production systems in challenging environments and mariculture systems for high-value species, and (2) the north-western highlands where opportunities exist for selected horticultural products, high-value crops, livestock and forestry products. Rather than commissioning a range of discipline and commodity oriented projects, as was done in the past, ACIAR established two regional programs each of which would contain a few large projects covering various components of a selected system. Substantial investment was made for scoping these programs, particularly in the north-western region where the complexities of the socio-cultural conditions required careful planning. A group of Australian and Vietnamese researchers, represented by the first four authors of this

paper, conducted a participatory scoping study during the first half of 2008, the results of which provided input into a program formulation workshop in September 2008. The project to kick off first was designed soon after, with a focus on natural resource management and agribusiness development in maize and temperate fruit based systems in the North West Highlands, and launched in May 2009.

This paper will present an overview of the ACIAR funded scoping study in the North West Highlands of Vietnam and outline the design of the first project, entitled “Improved market engagement for sustainable upland production systems in the North West Highlands of Vietnam”. After outlining the methodology applied in the scoping study, we will give a characterisation of rural life in the North West Highlands and describe the needs and opportunities identified for an ACIAR supported research for development program. We conclude with the implications of the scoping study results for the methodological and collaborative frameworks of the subsequent research project and the commitments required from the research team to make a difference.

## Scoping study methodology

The scoping study served to (1) describe past and present projects and R&D capacity in and for the North West, (2) identify constraints and R&D needs and opportunities at community level, and (3) describe directions for an ACIAR strategy plan. The core team of the study consisted of researchers from The University of Queensland (UQ) in Australia, and the Plant Protection Research Institute (PPRI) and the Academy for Journalism and Communication in Vietnam. The study covered six mountainous provinces with high poverty incidence in north-western Vietnam for the collection of general information regarding agricultural research and development priorities and constraints, i.e. Lao Cai, Lai Chau, Dien Bien, Son La, Yen Bai and Hoa Binh (see Figure 1). Detailed community level data were only collected in Lai Chau, Lao Cai and Yen Bai provinces, including a total of six districts, 18 communes and 36 villages. These three provinces were believed to represent agricultural areas where the potential for Australian-Vietnamese research collaboration was most apparent, considering climatic (temperate) zones, degraded sloping lands with integrated annuals-perennials-livestock systems, and the presence of local governments that would be supportive of a future research program.

**Figure 1: Location of provinces in the northern regions of Vietnam (area 2 = Hanoi)**

A range of methods was applied to collect information at institutional, provincial, district, commune and village level. Interviews and observations at institutional and provincial level were carried out by the Vietnamese members of the project core team, while a document review was completed by the Australian partners. Interviews involved 59 representatives from government, community and research/education organisations, and 67 managers of research and development organisation, while an additional 69 staff of research institutes and provincial departments were asked for their opinions and experiences through a questionnaire. Participatory Needs and Opportunity Assessment (PNOA) was conducted at district, commune and village level in Lai Chau, Lao Cai and Yen Bai provinces by a team of eighteen members, consisting of seven researchers (from PPRI, NOMAFSI, SFRI

and LRDC[1]), three provincial Plant Protection Sub-Department (PPSD) staff, three district-level extension officers or plant protection technicians, and five farmers from ethnic minority origin. All team members were involved in the development and pretesting of the data collection methodology for the scoping study. Methods included focus group discussions, participatory mapping, observations on the physical and socio-cultural environment, and in-depth individual interviews. Each sub-team operating at district level had at least one team member who could speak one of the local languages, and was supervised by a Vietnamese project core team member. In addition, a Vietnamese student conducted a thesis research project in Son La province as part of her Masters of Journalism at UQ to investigate media access and information needs of selected rural communities in Son La province (Chi, 2009).

The study culminated in an analysis workshop in June 2008, attended by representatives from relevant government and community organisations at central, province, district and commune level, during which the study results were discussed and the participants were involved in an Objective Oriented Program Planning exercise[2]. Subsequently, ACIAR organised a program formulation workshop in September 2008 to develop a framework for their strategy plan for the North West Highlands and outline an initial design for the first project. The University of Queensland was then commissioned to further develop a project proposal in collaboration with a range of Vietnamese partner institutions.

Considerable attention was given to capacity and team building of the study team members. As people from various educational and cultural backgrounds had to work together in small sub-teams, each of them with complementary roles, they all needed to understand the basics of participatory research approaches, and have a thorough appreciation of development issues pertaining to rural upland areas in the North West Highlands. The methodology development workshop contained substantial training and sensitisation activities to prepare the teams for the field work, whereas the analysis workshop at the end of the project equipped them with analytic and planning skills necessary to contribute to the analysis of study results. During the project evaluation at the end of the analysis workshop, all participants expressed their appreciation for the approaches applied in the project, and in particular, the opportunities to apply these methods in the field. As one of the extension officers involved in the Lai Chau team expressed it, he “had learned a tremendous amount from his interactions with farmers while simultaneously, through the hard work he had to do, developed a deep appreciation for what farmers are facing every day”.

## Characterisation of the North West Highlands

The landscape in the north-western provinces of Vietnam is characterised by mountains. Agriculture is largely self-subsistent with paddy production in the valleys, maize, upland rice, cassava, tea and a range of other crops on the slopes, and mostly free-ranging livestock around the houses and in the forests. With the original practice of shifting cultivation and increased population pressure, erosion and land degradation have taken their toll on soil fertility. Currently, sedentary cultivation is promoted by the government, but forest areas are still being reclaimed to expand food production. It is not uncommon to see corn being cultivated on steep slopes up to the top of the mountains and in rows along the contours of the slopes, while rivers are a muddy brown as a result of top soil washed off the slopes.

Where excess production is possible after the family needs have been fulfilled, produce is generally sold at local markets around the district capital, involving livestock, fruit, forestry products, vegetables and medicinal plants. Produce is typically transported on bicycles,

[1] NOMAFSI = Northern Mountainous Agriculture and Forestry Sciences Institute, SFRI – Soil and Fertiliser Research Institute, LRDC = Legumes Research and Development Centre.
[2] See, for instance, http://portals.wi.wur.nl/ppme/?OOPP/ZOPP/GOPP.

motorbikes or hand-carried, the latter particularly in the absence of roads. Cattle (buffaloes, cows) are collected from the villages by traders in certain areas where there is sufficient infrastructure. Pockets of more commercial market activities are found in areas with relatively easy access to roads where retailers can enter with trucks to collect fruit, vegetables, tea and flowers. Poor infrastructure has been a limiting factor in rural development in the North West Highlands, but expansion and improvement of roads is currently given substantial attention by the government and an increasing number of villages are rapidly becoming accessible.

All provinces in the North West Highlands have high ethnic diversity, with at least 30 of Vietnam's 54 ethnic groups represented in the region, including the Kinh majority group. Each ethnic group has its own language, which complicates communication processes to support development. Communes (the smallest unit in the administrative system) are generally spread over large areas with long distances between villages within a commune. The number of villages per commune can range from as low as 5 to as many as 20, with the number of people ranging from about 1,000 to over 8,000 per commune. A commune generally hosts a mix of different ethnic groups, which could be over 10 different groups in one commune. Commune leaders tend to be either of Kinh ethnicity or from the predominant ethnic group, resulting in most official communication to the community being in Vietnamese language. The village is the lowest social unit and many villages are primarily inhabited by one specific ethnic group, except for those where Kinh farmers from the lowlands settled (especially Yen Bai province). Village leaders are appointed by the commune government, but are often a member of the predominant ethnic group in the community.

Major changes that have occurred at the local level over the past five years include the construction of roads, electrification, and the introduction of new crops (seasonal food crops as well as perennials), new crop varieties and fertilisers. Communities that have been able to benefit from these developments feel that progress is being made to reduce poverty, while others in more remote villages have barely been reached. The poverty gap between these groups is increasing.

Markets and agricultural input stores can mostly be found in the district towns, but rarely in the communes. Agricultural input stores are generally owned by Kinh people and provide seed, fertilisers, pesticides and implements. There is limited availability of animal feed and medicines at the local level. Most of the retailers provide fertilisers on credit to farmers, which is paid back after harvest without interest, although it was found that the price tended to be higher than in the lowlands. Farmers in remote communes generally do not use external inputs as they do not have the funds to invest in them and produce mainly for self-subsistence.

The input retailers are an important source of information for those farmers who buy them as they often ask them for advice when purchasing their inputs. Most farmers in remote communities, however, have very little access to agricultural information. The community loudspeaker system was reported valuable in some places where the announcements were provided in the local language, but it was recognised that the amount and complexity of information through this medium is limited. The mass media mainly broadcast in Vietnamese language. Radio broadcasts in each of the major local languages occur only twice a week for 15 minutes at a time and do not necessarily contain location specific information. In addition to the language issue, farmers do not consider radio an appropriate medium to learn about new agricultural practices as it is not a visual medium. Television is only available in communities with electricity (which is a rapidly expanding in the country), however programs are in Vietnamese language and considered mere visual entertainment. Information received from agricultural extension officers is considered useful, provided it is conveyed or translated in the local language, but coverage across and within communities is limited and relatively few farmers regularly meet an extension officer. In terms of farmers' sources of information, they value communication with fellow farmers and community members, because it is conveyed in the local language and is

location specific, although the depth of information and the chance of learning something new are limited.

Farmers in the North West Highlands have generally limited access to credit facilities, partly because of the limited availability of such facilities, and partly because of the procedures required. The Agribank has branches at district level, and the Social Policy Bank can be found at the commune level. These banks provide loans mainly through the unions (Farmers, Women and Youth Union at commune level) and associations (collectives, veterans, etc.). Generally, nomination and approval from village and commune authorities is required before a loan can be contracted. Bank representatives interviewed reported that almost all applications materialise into successful loan agreements and that there are rarely bad loans. Farmers, however, report that only households with a healthy cash flow can access the loans, including the credits that are supposedly part of poverty alleviation programs. Farmers who have limited assets to serve as security, which is the large majority in the north-western highlands, are generally excluded from access to loans. Additionally, the loan arrangement process involves the filling out of forms and interviews in Vietnamese making it difficult for (illiterate) ethnic minority farmers to deal with. Private credit facilities are available in some places managed by Kinh or Chinese business people, although very high interests are normally charged.

## Agricultural development priorities, constraints and opportunities

While all organisations involved in rural development in the north-western provinces work towards achieving the general goal of eliminating hunger, ensuring food security and reducing poverty, specific priorities are set in each area depending on local needs and potentials. These range from, for instance, immediate assistance for poor families through agricultural inputs, subsidies or credit, and intensification of subsistence farm enterprises in Lai Chau, to development of seasonal and perennial cash crops in Lao Cai. However, not all of the intended development targets can be effectively addressed on the short term. There are obvious limitations with regards to financial and human resources and infrastructure to support effective development processes, besides which conflicting interests relating to the direction of development seem to exist among different layers in the society. Higher level government authorities tend to be committed to delivering rapid economic growth, which has proven to be more beneficial to the higher than the lower socioeconomic layers in society.

When asked what the main constraints in agricultural development in the north-western highlands were, many researchers interviewed in this study mentioned that they believed their technologies were adequate and appropriate but that the extension system is weak and incapable of effective technology transfer. Extension officers were of the opinion that the problem was with the farmers having low awareness and insufficient educational background to respond to their advice. In turn, the farmers complained that information that suits their conditions is rarely made available to them, and if at all it is often conveyed in a language that they cannot easily understand. All three perspectives have probably some truth in them; however, what really matters here is the obvious disconnection between the three sub-systems in the agricultural knowledge and information system. This in itself is a major constraint in rural development that needs to be addressed in order to tackle all the other problems effectively.

The multiple constraints reported by respondents at all levels in the study were structured by the study team into a series of problem trees during the final analysis workshop. The problem tree methodology allows for the identification of cause-effect relations in a set of reported constraints, and hence facilitates the identification of objectives and solutions for improving the situation. The two overarching problems identified causing high level of poverty in the region included (1) low income from agriculture (especially rice, maize, tea, fruit crops and livestock) due to small landholdings, production constraints, limited market

opportunities and lack of capital for investment, and (2) the unsuitability to local conditions of solutions and strategies to increase incomes, that is technologies, production zone projections and project development.

The problem tree analysis for each of the enterprise systems dominant in the region revealed a number of technical areas requiring attention specific for each of these systems. These ranged from problems dealing with soil fertility, pest and disease management and post-harvest damage to limited marketing opportunities, prices of inputs and lack of information. The following more general conclusions were drawn to provide direction to future program planning:

- The introduction of innovations would need to be based on market studies that have confirmed their potential, and be supported by market information systems.
- There is a need for the development (or adaptation) of technologies that respond to the needs of the farmers and the demands of the market, and that suit the specific agroecological and socioeconomic conditions of the prevailing farming systems. For the time being this would imply generally low external input and low investment option that help increase productivity and/or improve quality, while establishing excess production to allow a built-up of capital for investment.
- Ecological sustainability of innovations needs to be prioritised considering the vulnerability for degradation of the sloping lands.
- If investment is required to introduce innovations, credit mechanisms need to be established that allow poor farmers to participate.
- Capacity building using appropriate communication mechanisms that anticipate cultural barriers is key to improved practice change by farmers.

Any initiative only targeting a specific aspect within one farming enterprise is unlikely to results in sustainable improvements, as many aspects in the system are interrelated and will need to be tackled simultaneously. Poverty is not fixed by a simple practice change by the farmers through adoption of the silver bullet technology, but requires adjustment of the overall farming system, the availability of location specific options and support systems, and capacity building at all levels. In many places in the North West Highlands, it would imply a transition from subsistence to commercial farming. Opportunities for improved profitability of agricultural enterprises will have to be assessed based on realistic market studies, while taking into consideration that the market potential in the region is constantly changing. These changes are expected to lead to positive impacts as a result of expanding infrastructure. However, negative impact due to external market forces, including the recent and future WTO and other foreign trade agreements, also need to be anticipated. The severe competition for products such as temperate fruits particularly from China is a reality although there are possibilities for establishing niche markets. The majority of farmers interviewed in this study believed that the enterprise with most potential to improve their income is animal husbandry, especially pigs, poultry, buffaloes and cows. They are of the opinion that with improved feed availability, both in terms of quality and quantity, and particularly during the winter season, they can enhance the profitability of their livestock and improve their livelihoods in a sustainable way. Pig raising in particular was considered profitable while not implying much risk.

The enthusiasm of the farmers to participate in the needs assessment meetings is an indication of the potential that exists in the area for improvements, provided the right engagement and communication mechanisms are applied. The meetings were facilitated by the local farmer member of the district study teams and farmer participants appreciated that they were given the chance to express their opinions in their own language. Farmers conveyed their discontentment with information they receive via meetings or mass media that is conveyed only in the Vietnamese language, which many are not proficient in. Each community, however, seems to have people who can speak both Vietnamese and one or more local languages and who are able to bridge the communication gap. The extension system has begun to identify these people in each commune and involve them as part-time local extension officers. Further articulation of the roles of these people as well as the

district extension officers, and adequate support to enhance their technical and facilitation capacities will substantially improve communication between the agricultural research and extension system and the rural highland communities in the north-western region.

## Research and development planning and targeting

From interviews with respondents serving in management positions of central or provincial research and development organisations, it was concluded that, in general, the overall direction and strategy of the R&D organisations in Vietnam is determined by the management team, at most with input from heads of technical departments regarding specific technical research topics. Most organisations interviewed have strategic plans, with a time frame varying from one year for the mass organisations (Farmers Union, Women Union, Youth Union) to five years for most research institutes and development organisations. In addition to the general goals of achieving sustainable agricultural systems, some of the organisations include objectives such as “staff development”, “conservation of indigenous cultures and product”, and ”empowerment of women”. Strategic plans generally only contain the work that is done with the regular government resources, excluding externally donor funded projects that are abundant in the area. The non-alignment of development initiatives is an issue of concern. This results in many activities being implemented as individual, parallel projects. This does not favour the institutionalisation of approaches or outcomes, particularly not when specific engagement strategies are applied that required the generation of new communication skills and attitudes that break through the established orders.

There is a general perception that “bottom-up” and “market driven” approaches in R&D planning are applied, which is merely based on the interpretation of the fact that heads of technical departments, who have staff out in the field, are consulted in the planning process. It was, however, recognised that the more marginalised groups in the constituencies, especially the poorer, less educated and non-Vietnamese speaking sections in the farming community, seldom take part in agenda setting for or implementation of R&D activities. Hence, any information from the field, if at all considered in planning processes, is generally biased towards the more accessible, affluent and educated farmers. Formalised and structured community-based needs assessment activities or market studies are not conducted (unless an externally funded project requires it) as they require time and resources that are rarely available for this purpose. Some respondents expressed the view that they believed research agendas did not benefit all regions and ethnic groups in the provinces equitably, given the incompatibility of the research topics with the varying levels of awareness, educational background, economic status, social issues and cultural diversity existent in society. Half of the respondents reported that many potential research outcomes did not result in measurable changes at the farmer level because of the ineffective targeting approaches used in research. For example, technology development activities rarely take into consideration the lack of money or credit facilities that many rural families in the north-western region face, which does not allow them to test a new technology that requires investment. Whereas some feedback from the field in the identification of problems may occur in some areas, the identification and development of solutions to the problems are commonly operationalised in a top-down way, as is the promotion of options for improvement offered to the communities.

The communication of extension messages tends to make use of a variety of media, if budgets allow, including leaflets, brochures, mass media (local radio), informational meetings, written documents, field-based training and workshops. Two-thirds of the R&D staff interviewed reported that the language used in communication with rural communities was Vietnamese, while the other one-third uses both Vietnamese and local languages. Criteria generally used to select farmer participants in technology demonstration models or training workshop include:

- Ability to represent the community (in terms of ethnicity, economical status, etc.).
- Personal characteristics: high awareness/education, positive attitude towards change, good communication skills.
- Fluency in Vietnamese.
- Gender equality in certain projects and cultures, where women's participation is strongly encouraged.

In practice, this leads to the inclusion of, and benefits for, relatively better-off and more advanced farmers of the dominant ethnic group in the community who speak Vietnamese. In order to involve community members in R&D activities, there is a tendency to “buy them in” by emphasising the expected benefits (rather than the risks involved and efforts required in change processes), and providing incentives such as travel allowances, free or subsidised inputs and/or loans or grants for investment. Despite the fact that these methods have been proven not to lead to sustainable change, it is common practice in Vietnam. Sentiments existed among half of the respondents that a lot of their work is done in project mode and very little remains behind after funds for the project or activity have dried up. The lack of institutionalisation is thought to be the result of:

- The limited awareness/low education of (especially ethnic minority) farmers.
- The lack of continued funding over a substantial period of time to maintain activities.
- The limited availability of good examples and success stories.

The other half of the respondents appeared more optimistic and was of the opinion that many results of projects and activities were sustained and contributed to better livelihoods of people in targeted communities. It was also emphasised that local authorities have flexible policies and some resources to institutionalise project activities, if deemed relevant.

## Directions for program and project design

The scoping study produced an enormous amount of information describing the constraints to agricultural development in the north-western highlands of Vietnam, on the one hand, and opportunities and commitment for improvement, on the other. The overarching limitations to development identified in this study are summarised by:

1. Limited infrastructure restraining people from accessing inputs, information, services and markets, and
2. Degrading agroecological conditions due to increased population pressure and unsustainable practices, threatening the sustainability of farm enterprises.

Although expansion of infrastructure is beyond the scope of any agricultural research for development project, it will be important to review and anticipate the direction of infrastructure development in order to decide on the immediate target group for research, which in turn determines the type of research to be conducted. The farming community in the north-western highlands can roughly be divided into three categories:

- Those in remote communities without (short term prospects for) easy access to roads and facilities. These are generally the poorest of the poor.
- Those living in areas where roads and facilities have recently been built or are being planned. These are amongst the poorer families but with potential for dramatic changes in the near future.
- Those who have been living close to urban centres and major roads for a while and are already linked into market mechanisms. These are generally the relatively better off, who are in a more comfortable position to change for the better, but also an already more advantaged position.

The first category is not the immediate target that fits ACIAR’s strategy, as there are virtually no opportunities to increase income within the timeframe of a research project.

The second and third categories require very different research and dissemination strategies, and therefore, a research for development project would have to clearly target either one or the other. It was recommended to ACIAR to target the second category of newly connected agricultural systems in their North West Highlands program as this is where substantial livelihood impacts can be made at both economic and socio-cultural levels.

The major areas where improvements can be expected through agricultural research for development in the North West Highlands are summarised in Figure 2 below. It is important that the various aspects of the agricultural system are all addressed in an integrated way, in order to balance food security for the family, cash income generation and financial security in tandem. This implies improvements of seasonal food crops, perennial cash crops and animal husbandry systems, with overall underlying support in the areas of soil conservation, marketing, credit facilitation and communication. Of the specific research areas to be addressed, the following were identified as highest priority: (1) sustainable cultivation methods for maize, (2) improved varieties for fruit trees and tea, (3) post-harvest technologies for marketable produce, and (4) improved livestock management practices.

Based on these findings and further stakeholder consultation, ACIAR and their Vietnamese partner organisations formulated the outline of a larger research for development program for the North West Highlands, which encompasses:

- Integration of smallholders into profitable market-orientated chains in high value food and horticultural crops.
- Capacity improvement of the research and service provider system and of smallholders to generate suitable innovations and enable practice change for sustainable and profitable farming.
- Improved natural resource management for sustainable and profitable crop productivity on sloping lands.
- Improved feeding, management and marketing systems for large ruminant and pigs to increase smallholder profitability.
- Suitable post farm-gate technologies for food and horticultural crops that improve profitability and reduce risk for smallholders.

The design for this program is illustrated in Figure 3. The Agribusiness and Communication/Practice Change components form the core of the program and provide the methodological and conceptual foundation for each of three individual projects in the program. The projects would all contain these two components in combination with one of the technical research areas characterising the focus of research, i.e. natural resource management, livestock management and post-harvest management. Although each of the individual projects would apply a systems approach, the overall program would provide for comprehensive coverage of and linkages amongst all aspects of the larger agricultural system in the North West Highlands.

The first project to be designed was the one with a technical focus in the natural resource management area. The project entitled “Improved market engagement for sustainable upland production systems in the North West Highlands of Vietnam” was launched in May 2009 and serves the following objectives:

1. 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.

2. Develop improved farm and value chain management practices to optimise sustainability and profitability in smallholder maize and fruit based farming systems.

3. Build competitive value chain models which engage smallholders with more profitable markets that support improved land and crop management.

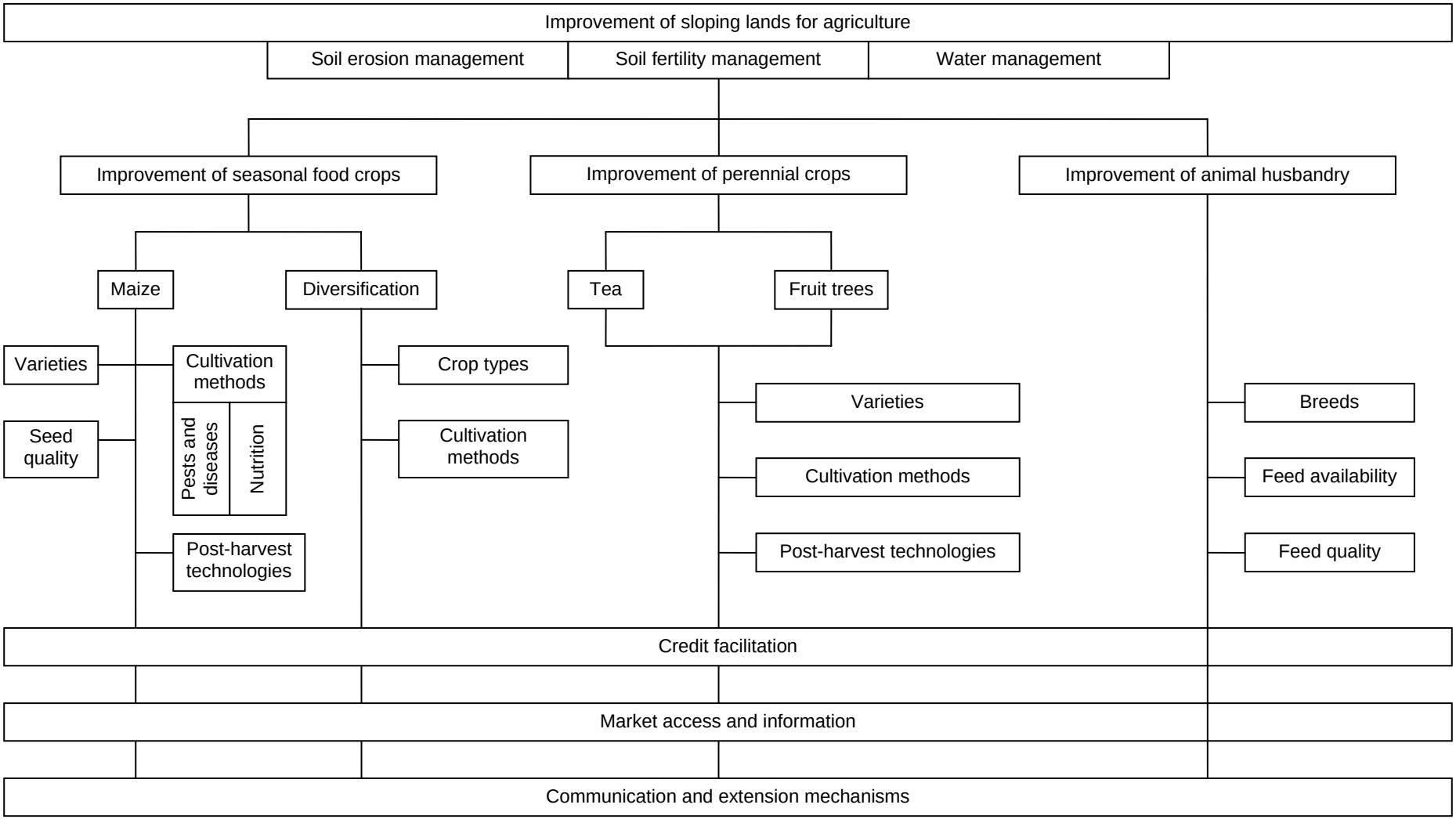


**Figure 2: Priority areas for agricultural research in the North West Highlands of Vietnam**

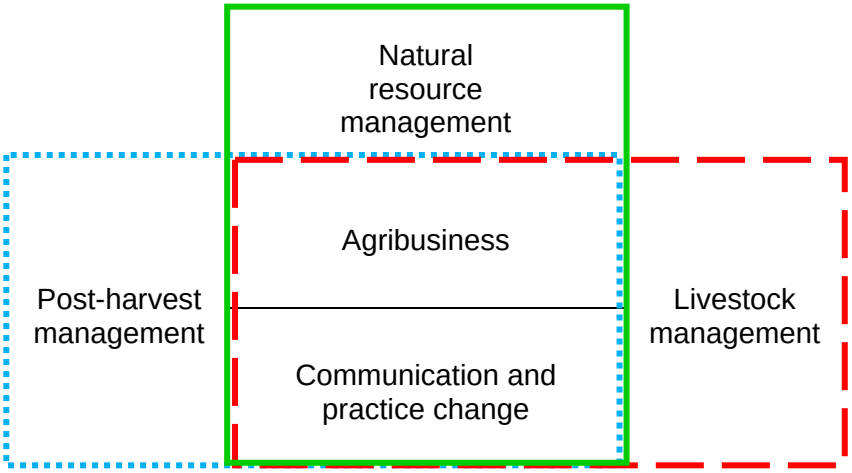


**Figure 3: Design of the ACIAR agricultural research for development program in the North West Highlands of Vietnam**

4. Evaluation of value chain interventions and improved land and crop management techniques to support scale out of successful technologies into government and non government development strategies.

The project involves a group of Vietnamese and Australian researchers across a range of disciplines (communication, agro-economics/agribusiness, crop/pest management, soil science), who partner with farmers and extension officers in eight locations across two province in the North West Highlands (Lai Chau and Son La). The framework for the project applies a farmer-centred approach at all stages: needs and opportunity assessment for research agenda setting, technology development and adaptation, and development model design and piloting. It is built on the principle that to ensure successful community development outcomes, both content and process of the research and development processes need to suit the specific local conditions and capacities. Considerations include:

- The suitability of the innovations to be introduced in relation to needs, conditions and capacities.
- The nature of the innovation and the implications for farmers to implement those innovations (knowledge, skills, investment funds, access to inputs and markets, etc.).
- The nature of the communication processes to suit the abilities of the targeted sections in the community (e.g., level of education, language ability, and cultural values).
- The capacities and resources of the system to carry the process at a substantial scale.

The project started off with a series of diagnostic studies from September 2009 to February 2010 to understand and identify the specific agroecological, socioeconomic and cultural conditions of the participating communities, and establish partnerships with these communities for continued collaboration through the consecutive applied and adaptive research phases. These are planned for the period 2010-2013.

## Concluding remarks

By investing in a detailed scoping study, ACIAR and their Vietnamese agricultural research partners have designed a program that responds to specific needs, opportunities and conditions in a region that so far has not been adequately reached by agricultural R&D. It was realised that to reach the unreached through an agricultural development approach that is based on establishment and improvement of commercial agriculture, basic infrastructure

will have to be in place first. This implies that the unreached who do not yet enjoy this basic infrastructure will still miss out. However, infrastructure alone will not guarantee equitable access to the opportunities that come with it, and therefore carefully designed communication strategies to facilitate development are required to ensure inclusion of all layers in the society. This is what the ACIAR program in the North West Highlands tries to achieve. To fulfil the promise the program design holds, further efforts are needed to find synergies between innovative approaches and mainstream models, on the one hand, and to identify the needs and opportunities for partners to effectively assume new roles and implement new practices, on the other. Research partners are required to get out of their comfort zones and work across disciplines, travel into unknown areas, and face cultural barriers. This can be unsettling for all parties involved, whether it be Vietnamese or Australian, researchers or community members. Successful implementation will require continuous reflection and negotiation, capacity building at all levels, and structural adjustment of research management. Through learning-by-doing the team is expected to establish the capacity and commitment to go the extra mile that is needed to make a difference for those groups that are not implicitly reached through the mainstream models of development.

## References

Agrifood Consulting International (ACI) (2003) *Strategy and Road Map for Agricultural Science and Technology in Viet Nam ADB RSC C31072-VIE*. Report Prepared for Asian Development Bank, Ha Noi, Viet Nam: ADB, 281 pp, www.agrifoodconsulting.com/ai/dmdocuments/Project%20Reports/Research&Extension/RoadmapS&TVN.pdf [accessed 9 July 2008].

Asian Development Bank (ADB) (2002), *Indigenous peoples/ethnic minorities and poverty reduction – Viet Nam. Manila: Asian Development Bank*, 51 pp, http://www.adb.org/Documents/Reports/Indigenous_Peoples/VIE/default.asp [accessed 31 May 2007].

CIEM (2004), *Establishment and Development of Science and Technology Market in Vietnam to Accelerate Socio-Economic Development and to meet the Requirements of International Economic Integration*, CIEM Working Paper No.5-2004 (English Summary), Hanoi, Vietnam: Central Institute of Economic Management, 4pp, http://www.ciem.org.vn/home/en/home/InfoPreview.jsp?ID=976 [accessed 2 July 2007].

Chi, Ngo Thi Linh (2009). *Communication for development: Improving media access for ethnic minorities in Son La Province, Vietnam.* Master's thesis (unpublished). Brisbane: The University of Queensland, 79 pp.

The International Bank for Reconstruction and Development/The World Bank (2009) *Country Social Analysis: Ethnicity and Development in Vietnam - Summary Report.* Washington: The World Bank, 64 pp.

Van de Fliert, Elske, Do Thi Minh Hien and Pham Thi Vuong (2007). *Bridging knowledge needs and knowledge generation for ethnic minorities through participatory communication in Vietnam – Way to go or passing fad?* Paper presented at the 2007 IAMCR Annual Conference 'Media, Communication, Information: Celebrating 50 Years of Theories and Practices', 23-25 July 2007, UNESCO, Paris, France.