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Tropics

Guidelines to Engage with Marginalized Ethnic Minorities in Agricultural Research for Development in the Greater Mekong



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About this document

This document is an output of Humidtropics, a CGIAR Research Program on Integrated Systems for the Humid Tropics. This document is a result of literature reviews on ethnic minorities and agriculture in China and Viet Nam, a gender norms study in a village in Northwest Viet Nam, three experts' workshops, and in-depth qualitative research in two villages in Northwest Viet Nam and one district in Northern Lao PDR. All aforementioned research was implemented between 2015 and 2016. Results of gender norms studies in five Northwest Viet Nam villages undertaken between 2014 and 2016 also contributed to the composition of this document.

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List of abbreviations

ACIAR	Australian Centre for International Agricultural Research
AIT	Asian Institute of Technology, Thailand
CARES VNUA	Center for Agricultural Research and Ecological Studies, Vietnam National University of Agriculture
CIAT	International Center for Tropical Agriculture
CIP	International Potato Center
CMU	Chiang Mai University, Thailand
CNRS	French National Center for Scientific Research
CSDM	Centre for Sustainable Development in Mountainous Areas, Vietnam
DARD	Department of Agriculture and Rural Development, Vietnam
EFEO	French School of the Far East
FGD	Focus group discussion
Humidtropics	CGIAR Research Program on Integrated Systems for the Humid Tropics
ICRAF	World Agroforestry Centre
IDO	Intermediate Development Outcome
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
IWMI	International Water Management Institute
Lao PDR	Lao People's Democratic Republic
LI-BIRD	Local Initiatives for Biodiversity, Research and Development, Nepal
M&E	Monitoring and evaluation
NGO	Non-governmental organization
NTFP	Non-timber forest product
RTB	CGIAR Research Program on Roots, Tubers and Bananas
R4D	Research for development
WUR	Wageningen University & Research, the Netherlands

1 Introduction and background: *What is this document and why is it needed?*



Discussions with monk and farmers at Pong Kham temple, Nan, Thailand (ICRAF/Lisa Hiwasaki)

The Greater Mekong region (Cambodia, Laos, southern China, Myanmar, Thailand, and Viet Nam) is characterized by considerable ethnic diversity [1]. Many ethnic minority groups live in remote rural uplands and mountains where the soil is less fertile and the terrain uneven and steeply sloped. Ethnic minorities' social and cultural norms, farming practices, and traditional bodies of agricultural knowledge differ from the lowland ethnic majority peoples who form the political core of Mekong countries [2, 3]. State and private sector programs and policies to promote rural development in the agricultural sector focus on intensifying agricultural

production using hybrids and chemical fertilizers and pesticides, which replace traditional farming techniques. Monoculture plantations of cash crops grown for regional and global value chains such as rubber, coffee, maize, and cassava replace subsistence oriented, diversified agricultural production. Furthermore, swidden cultivation—often practised by upland ethnic minorities—has generally been considered archaic and environmentally destructive by those with political power [4, 5]; therefore, development policies widely promoted cultural integration, economic standardization, and agricultural modernization [6, 7].

Aim and target audience of these Guidelines:

- The **target audience** of the Guidelines is researchers working on agricultural research for development (R4D) in the Mekong region, particularly those working in (or interested in working in) transdisciplinary research teams for agricultural R4D in the Mekong region. This includes national & international researchers, and social & bio-physical scientists. Local practitioners and development workers who implement research-oriented development projects may also find the Guidelines useful.
- The **aim** is to promote, to researchers working on agricultural R4D in the Mekong region, meaningful engagement of groups who are typically marginalized in agricultural R4D, i.e., ethnic minority groups, the poor, and disadvantaged women. Considering the significance of this issue in the Mekong region, the focus is on ethnic minorities. We propose principles, methods and tools that can move agricultural R4D towards transdisciplinary action research that increases the engagement of marginalized groups. Most of these principles, methods and tools are relevant for agricultural R4D in general, but using these is particularly important to help prevent further marginalization of certain groups.

The intense social, economic, and political changes the Greater Mekong region is currently undergoing—such as rapidly expanding infrastructure and markets, government policies and programs that promote rural and agricultural development—present many opportunities for improved livelihoods [5, 12, 13]. At the same time, some of these changes pose threats to sustainable livelihoods of upland smallholder farmers [3, 4]. As a result of such developments and in addition to infrastructure and market links, there have been significant changes in the cultures and livelihood strategies of ethnic minorities. These have too often led to loss of decision-making power, resulting in increased marginalization [14]. These changes make ethnic minority farmers more vulnerable to external risks such as changes in market prices, climate change, extreme climatic events, and environmental degradation, and food insecurity [15].

Agricultural research or rural development projects in this region further marginalize ethnic minorities because they focus on promoting or enforcing lowland techniques and innovations for agricultural modernization and commercialization. Most agricultural research for development (R4D) projects work only with majority ethnic groups or ethnic minority groups who are accessible in terms of location and language, and are thus better-off than others.¹ This further reinforces the marginalization of certain ethnic groups, especially those who live in remote areas. Even when ethnic minorities are brought into agricultural R4D projects, innovations are often introduced in a top-down manner, and worse, often do not meet their needs.

This creates a vicious cycle whereby marginalized ethnic groups continue to be marginalized, and prejudices against them are reinforced [8]. This is an issue because ethnic minority groups in the region tend to constitute the poorest of the poor, with less material wealth, lower school attendance rates, and fewer job opportunities and market access [9, 10, 11].

¹ For example, out of more than 30 R4D activities implemented in Central Mekong Action Area of Humidtropics CGIAR Research Program in 2015, only two directly contributed to Humidtropics' Intermediate Development Outcome (IDO) related to "women and other marginalized groups"; moreover, only one activity specifically mentioned "ethnic minority".

This document is designed to help researchers who want to engage with ethnic groups to ensure agricultural R4D stops contributing to their further marginalization. It can be used by those wanting to design new projects that engage with ethnic minorities from the start or those already implementing projects and wanting to improve their current practice.

The overall approach that these Guidelines recommend is transdisciplinary action research. A transdisciplinary action research project that meaningfully engages marginalized ethnic groups must deal with not only technological and institutional challenges and innovations, but must also take into account the various systems embedded in the specific contexts where R4D takes place:

- **Socio-cultural, economic and political systems** (culture, traditions, norms, financial tools, markets, consumption patterns, politics, policies, and development history);
- **Agro-ecological systems** (water, soils, crop/ animal varieties, fertilizers, agricultural techniques, land use systems, farm management knowledge & practices, livelihoods, and markets); and the
- **Agricultural R4D system** (operationalization of agricultural R4D, constraints inherent in conventional approaches and methods).

Transdisciplinary research is uniquely suited to analyze where these various systems interact and overlap and can enable a more holistic approach to agricultural R4D in marginalized communities [16, 17]. See Annex for a more extensive list of transdisciplinary research resources.

What do we mean by transdisciplinary research?

Multidisciplinary research involves several disciplines but there is no interaction between them.

Interdisciplinary research involves several disciplines, with interaction between them. "Unidirectional interdisciplinarity" refers to research where coordination of the disciplines is imposed by a single discipline, whereas "goal-oriented interdisciplinarity" refers to research where interactions and coordination of disciplines are determined by the nature of the problem to be solved.

Transdisciplinary research involves researchers from a range of scientific and technological disciplines, but also other stakeholders, such as local people and government entities [18].

In transdisciplinary action research, the disciplinary “silos” are torn down, as are the barriers between researchers and research subjects. Researchers from multiple scientific disciplines—social, economic, political, and bio-physical scientists, for example—work together with communities who hold local and indigenous knowledge. Scientific knowledge and local and indigenous knowledge are given equal value in order to understand and address the livelihood contexts of marginalized groups in an integrated manner. Such research engages with ethnic minorities in a way that gives them choices about if, when, and how they participate in, shape, and benefit from research. This is based on the understanding that local people may have different trajectories of development, and through their local knowledge and agency, new or alternative pathways could be developed.

Implementing transdisciplinary action research calls for a learning paradigm and “new professionalism” that brings together different sciences and worldviews, which enables the understanding of the diverse and complex local realities in a participatory manner. This often requires a change in worldview of those implementing agricultural R4D. Transdisciplinary action research uses participatory action research as a core methodology to engage, reflect and learn with farmers, and act as catalysts for innovations and facilitators of farmer-to-farmer learning [19].

This document identifies different challenges that maybe faced at different stages in the project cycle. Not all projects will necessarily face all challenges, and not all challenges come at the same time. While there may appear to be many things to get right when reading the guide from cover to cover, doing good transdisciplinary action research is not as complex as it might first appear.

The Guidelines are built on the collective experience of 22 researchers and practitioners with experience engaging with ethnic minorities or other marginalized groups in Southeast Asia. This experience, captured during three workshops, was complemented by literature reviews in China and Viet Nam, and in-depth field work four villages (in Northwest Viet Nam and Northern Lao PDR).

The Guidelines are built on an analysis of the factors that lead to marginalization that agricultural research can affect (Figure 1). These factors bring about three sets of challenges: the agricultural R4D system as a whole; for research teams; and for agricultural R4D projects. The Guidelines are organized around these three sets of challenges, identifying for each challenge strategies that can help prevent further marginalization according to different stages in the project cycle (Figure 2).

2 Challenges to operationalizing transdisciplinary action research and strategies to prevent further marginalization of ethnic minority groups

The marginalization of ethnic minorities in and through agricultural R4D is influenced by two groups of factors (Figure 1): (i) **internal factors**, which reflect livelihood assets and access to them; and (ii) **external factors**, which reflect constraints of agricultural R4D projects that are usually conceived and designed externally. These factors interact with each other and can result in marginalization at different scales, in different contexts, and over different time frames. Consequently, benefits of agricultural research and interventions do not reach marginalized ethnic groups, and may negatively impact their cultures and livelihoods.

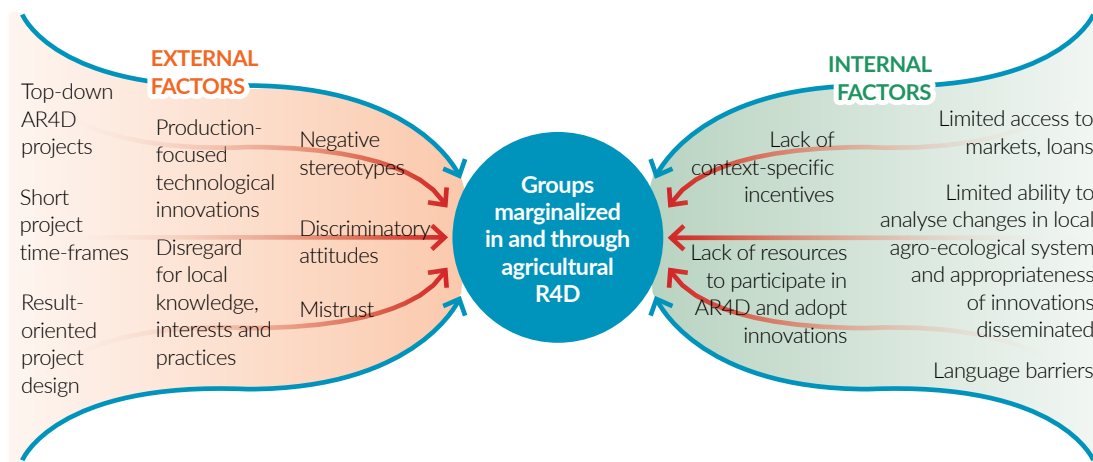


Figure 1. Factors contributing to marginalization of ethnic minorities in and through agricultural R4D

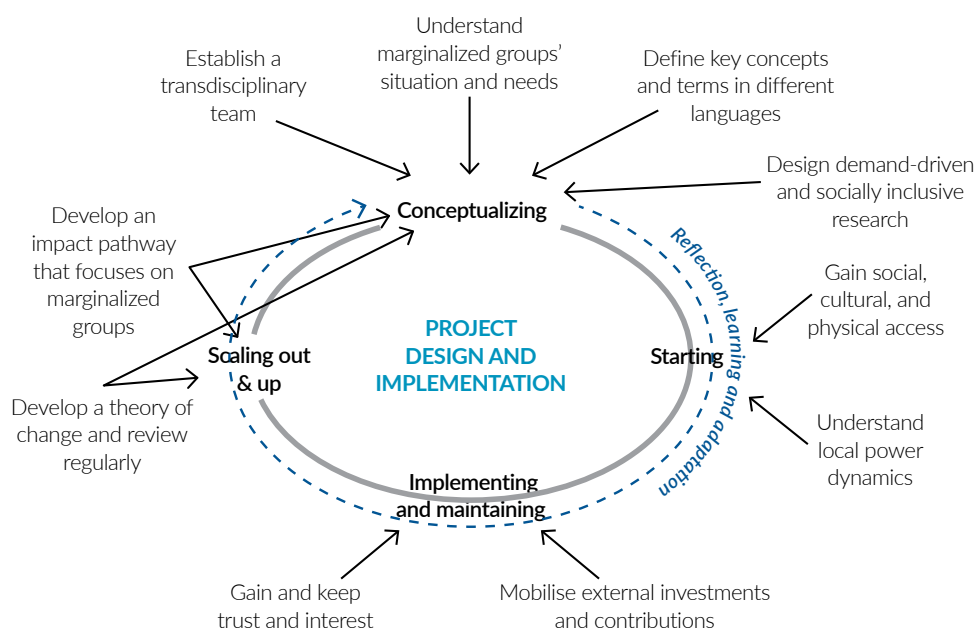


Figure 2. Transdisciplinary action R4D that engages with marginalized groups

Table 1 below outlines the strategies that can help agricultural R4D researchers to carry out transdisciplinary action research that engages more effectively with marginalized ethnic minority groups in order to achieve more inclusive and equitable rural development from agriculture. The table serves as an

index to the Guidelines, and also includes examples of activities and methods that can be used to address each challenge. These examples give an indication of resource implications entailed in order to facilitate participation and engagement of marginalized groups, which is further discussed in section 3. below.

Table 1. Index to the Guidelines: Challenges and strategies

Type of challenge	Challenge (Challenge number)	What to do about the challenge	Activities and methods
System challenges	Improved understanding of research context a.1	Establish an effective transdisciplinary team	See challenges c.1 to c.5 and b.1 below for the range of activities and tools to implement these strategies
	Meeting needs and interests of diverse stakeholders a.2	Obtain holistic and broader perspectives of the various stakeholders	
	Insufficient time to meaningfully engage marginalized groups a.3	From the project conceptualization: <ul style="list-style-type: none"> Engage marginalized groups Use existing knowledge on ethnic groups Incorporate “scaling out & up” Build trust	
Team challenges	Establishing and sustaining an effective research team b.1	Establish an effective transdisciplinary team	Stakeholder workshops
	Fostering positive interactions within research team b.2	Tear down the “silos” that result in different scientific disciplines and knowledge systems	Training on participatory and qualitative research tools Joint fieldtrips and other activities
	Combatting negative stereotypes and discriminatory attitudes b.3	Break down negative stereotypes about ethnic minorities and combat prejudice	Joint fieldtrips and other activities
Project challenges	At project conceptualization		
	Integrating ethnic minorities in project conceptualisation c.1	Identify the ethnic minorities that are present at a given site, characterize the field sites, and ensure that such information is incorporated into project design	Reconnaissance field visit with gender-sensitive rapid assessment

Type of challenge	Challenge (Challenge number)	What to do about the challenge	Activities and methods
		Define key concepts and terms in different languages, particularly those used by the ethnic minorities	Create a multilingual glossary of key project terms and concepts
		Design demand-driven and socially inclusive research	Participatory planning and vision-setting
	Project start		
	Reaching ethnic minorities c.2	Gain social, cultural, and physical access	Project kick-off meeting
	Engaging ethnic minorities without negatively impacting local systems c.3	Understand local systems and power dynamics	Stakeholder mapping and analysis
	Project implementation		
	Sustaining ethnic minorities' interest and engagement c.4	Gain and keep trust	Workshops and training with ethnic minority groups and regular visits Multi-stakeholder processes
	Maintaining project activities under budget constraints c.5	Mobilize investment and contributions	Workshop to define project finance priorities and identify resources.
	Scaling out and up		
	Ensuring widespread development impacts c.6	Develop an impact pathway that focuses on marginalized groups	Workshop to identify development challenge and capacities to build
	Linking development outcomes for ethnic minorities c.7	Develop a theory of change and regularly review	Outcome sourcing

- a. **Systemic Challenges:** Ensuring that ethnic minorities benefit from agricultural R4D requires a deep understanding of both the research context itself and the needs of diverse stakeholders. Achieving such an understanding requires significant amounts of time, money, and human resources. These resources can be difficult to secure under current financial constraints, which often require researchers to “cut corners.” Thus, we recognize that it will be difficult to implement transdisciplinary action agricultural R4D that truly engages with and results in benefits for marginalized ethnic groups unless the agricultural R4D system as a whole changes, or your institution or funding source(s) support the investments and long-term commitment required for such research to bear fruit.

CHALLENGE a.1: How can we improve our understanding of the socio-cultural, economic, and political dimensions of the research context? Implementing agricultural R4D that does not further marginalize ethnic minorities requires the use of social scientific approaches, methods and tools to analyse the socio-cultural, economic, and political dimensions of the research context. However, this is often not sufficiently recognized by agricultural R4D researchers, who tend to focus on agro-ecological dimensions.

What to do a.1: establish a transdisciplinary team, led by a scientist from a relevant discipline with an interdisciplinary background and clear understanding of transdisciplinary approaches.
→ See Challenge b.1 for more on establishing a transdisciplinary team.

CHALLENGE a.2: How can we address the different needs and interests of diverse stakeholders?

The political, socio-cultural, and economic realities in the Mekong context are complex: there is a diverse range of stakeholders with diverse (and sometimes conflicting) needs and interests.

What to do a.2:

- Obtain broader, holistic perspectives of the local reality of the various stakeholders in your field sites, i.e., differences in needs and power relations within the community at multiple scales.

→ See Challenge c.3 on who the different stakeholders are, how to understand the stakeholders and their local power dynamics.

- Recognize that not all stakeholders' needs can be met with one agricultural R4D project. You can be explicit about which stakeholders' needs the project is targeting, while ensuring that the most disadvantaged groups are not marginalized. One way this can be addressed is by establishing multi-stakeholder platforms whereby the various stakeholders get together to jointly identify problems, discuss and prioritize challenges, develop and test possible solutions, and build their respective capacities. An acute sensitivity to power structures and dynamics among the stakeholders is necessary to ensure that the process of prioritization does not contribute to further marginalization of disadvantaged groups, e.g., a civil society representative or a scientist can provide support for ethnic minority farmers who may not be able to speak out in multi-stakeholder platforms.
→ See also Challenge c.4 below on multi-stakeholder processes.

CHALLENGE a.3: How can we address the fact that the typical R4D project cycle does not allow us have sufficient time and resources to engage with marginalized ethnic groups in a meaningful way?

Donors often have requirements about the project cycle and output delivery within a set amount of funding and a constrained timeline. This can make it difficult to meaningfully engage local farmers, especially marginalized ethnic minorities with different worldviews and socio-cultural, economic, and political realities from the ethnic majority group. Local partners—often from the ethnic majority—can also steer the project away from working in sites where ethnic minorities live, or away from working with marginalized ethnic groups who live in the research site. Furthermore, the project timeline is not necessarily aligned with the “timeline” of villagers.

What to do a.3:

- Invest time and money to engage marginalized groups, especially ethnic minority women, from the project conceptualization stage.
- In addition to agro-ecological knowledge, use existing knowledge (e.g., local & indigenous knowledge from literature review or projects undertaken in the site in the past) on ethnic groups in project conceptualization.
→ see Challenge c.1-1 on how marginalized groups can be engaged and integrated in the conceptualization of a project, and how existing knowledge can be used for project conceptualization.
- Incorporate “scaling out & up” stage in the project conceptualization and implementation.
→ see Challenges c.6 and c.7 for how scaling out and up can be done.
- Recognize that a key component when working with marginalized groups is building trust, which takes time. Consider your research project as part of a long-term commitment that goes through a long process of engagement with marginalized groups.
→ see Challenge c.4 for building and maintaining trust.
- Engage with donors and research institutions so that the evaluation and assessment of research are not just on numbers of people impacted. Rather, to value qualitative impacts, particularly evidence that R4D activities are strengthening the capacity of ethnic minorities to drive their own development trajectories. Without this, research on marginalized ethnic groups will not be prioritized or funded.

b. **Team Challenges:** By definition, transdisciplinary research entails working with a diverse team of researchers and local collaborators: in order to conduct productive transdisciplinary research, such a team must be strengthened (rather than weakened) by its diversity. Fostering a dynamic that allows for this presents several considerable challenges.

CHALLENGE b.1: How can we establish and sustain a project team that will enable us to engage effectively with ethnic minorities and meet their research needs?

What to do b.1: Establish a transdisciplinary team which consists of scientists representing all disciplines necessary to solve the agro-ecological research problem and development problem.

Avoid expanding the team unnecessarily, as this can render the research expensive and cumbersome to manage.

How b.1:

- At the beginning of a project, organize stakeholder workshops to identify potential collaborators.
→ see Challenge c.2 below for more information on how such workshops can be organized to identify potential co-learners and project participants, and Challenge c.3 for how to implement stakeholder mapping and analysis to identify potential research team members.
- Include in the team:
 - a team leader: a scientist from a relevant discipline with an interdisciplinary or development background with a clear understanding of transdisciplinary approaches, and the ability to communicate with all team members;
 - researchers who have experience with, or who are already working with, ethnic minorities, including:
 - social scientists with participatory and qualitative research expertise, and with experience working with the particular marginalized groups to be engaged. Social scientists can also work with local or traditional knowledge holders and ensure such knowledge and practices are incorporated in the agricultural R4D;
 - bio-physical scientists from disciplines that can help solve the agro-ecological challenges of the site, with the ability to listen to the real needs of ethnic minorities, instead of imposing on these groups what researchers think is the best “solution”;
 - development workers or organizations with experience working in the region, who can engage with the marginalized ethnic groups, and play key roles in scaling out and up agricultural R4D results;
 - local farmers from the field site(s), especially ethnic minorities who are holders of local and indigenous knowledge, or others who can gain social and cultural, as well as physical, access to such knowledge;
 - policy-makers and government partners, who are important for scaling out and up. As much as possible, look for people from the relevant ethnic minority group(s).
- Carefully select potential team members before finalizing the team by taking the time to check their references; facilitate quality interactions, e.g., by doing activities such as field trips. It is important to keep in mind that “soft skills” such as interpersonal skills are extremely important for project success.
- Ensure that women are adequately represented in the research team, especially to enable interviews, focus group discussions and other interactions with women to be implemented by women.
- As much as possible, look for qualified researchers with the same ethnic background as those in the field site you intend to study. If you have difficulties finding such researchers, consider training ethnic minority researchers.
- Within the timeframe available, allow adequate time for discussions and reflections on transdisciplinary action research approaches among all team members, and provide training as necessary on participatory and qualitative research tools and methods.

CHALLENGE b.2: How can we foster positive interactions among transdisciplinary team members?

What to do b.2: tear down the “silos” that result in different scientific disciplines and knowledge systems that typically work separately and do not interact with each other by fostering regular and meaningful interactions among team members. Make sure all members of the team speak a “common language”, especially when it comes to working with marginalized ethnic groups.

How b.2:

- Conduct field visits together and reflect while in the field on key issues, which can bring the different perspectives together.
- Organize events for sharing knowledge, experiences, progress, and challenges working with ethnic minorities.
- Develop and implement joint-action activities for addressing common challenges that create safe spaces that hold participants together for long enough to

understand and appreciate each other's perspective, which is necessary for reaching a durable solution.

CHALLENGE b.3: How can we address the negative stereotypes and discriminatory attitudes, including paternalistic attitudes, that may be held by some project team members?

What to do b.3: Break down negative stereotypes about ethnic minorities that might make some team members reluctant to engage with them, and combat prejudice by influencing the mindset of researchers through discussions and the dissemination of correct information.

How b.3:

- Organize a learning session for all team members to obtain an understanding of how the political and economic system has historically marginalized some ethnic groups.
- Showcase some “good examples”, e.g., success stories of how some ethnic groups have successfully engaged with agricultural R4D projects, and demonstrate how ethnicity or gender can be an asset, not an

obstacle, to effective implementation of project.

- Organize field activities to learn about local or traditional knowledge and practices—agro-ecological or otherwise—and assist the research team in learning directly from ethnic minorities.
- Create opportunities to increase “positive” interactions between non-marginalized groups and marginalized ethnic groups, e.g., by engaging graduate students from marginalized groups in the region or working with particularly innovative role models.
- Carefully deconstruct who typically participates in the research and who does not, paying particular attention to the reasons why certain groups may have been excluded from, or want to participate in, the research process in the past. This should serve to explain that if project benefits are kept in the hands of leaders and local elites, projects could reinforce the marginalization of certain groups.
- Facilitate creation of safe spaces, as mentioned in Challenge b.2 above.

c. **Project Challenges:** Different actions and methods are categorized according to different phases of a research project: (i) project conceptualization, (ii) project start, (iii) project implementation and maintenance, and (iv) scaling out and up. In this section, the approaches, actions, and methodologies that can be adopted are categorized according to challenges or constraints that commonly occur at each stage.

i. Project Conceptualization Stage

CHALLENGE c.1: How do we integrate marginalized ethnic groups in the conceptualization of a project?

What to do c.1-1: Identify the ethnic minorities that are present at a given site, characterize the field sites, and ensure that such information is incorporated into project design.

If the planned research will take place in upland areas, it's very likely that the farmers will be predominantly from one or more ethnic minorities. To ensure ethnic minorities and their needs are not ignored or subsumed in the proposed research, key social, demographic, historical, cultural and economic information—as well as information about previous projects implemented in the area—should be obtained before field

site selection takes place and the research focus is set. However, even after the site has been selected and the research focus has been set, collecting such information is still relevant.

In addition, characterization of the field site(s) is important to provide the overall context, including key agricultural, ecological, political, and geographic information. Information gathered can be incorporated into the project design and help conceptualize the overall project with a more in-depth understanding of the key issues.

How c.1-1:

Collect secondary data on key social, geographic, demographic, historical, cultural, political, and economic information; combine these data with information about previous projects implemented

in the area. Ideally, this should be complemented by a reconnaissance field visit to conduct a rapid yet gender-sensitive assessment which includes transect walks, key informant interviews and focus group discussions (FGDs) with key local stakeholders, including women. Stakeholder categories to engage with at the site include farmers (including both female and male ethnic minority farmers), local NGOs, local government agencies, in addition to other formal and informal groups, e.g., village youth groups, women's unions, farmers' groups, and traditional village committees.

Key information is listed below that will help identify more disadvantaged ethnic minority groups that should be targeted by the research and/or intervention—or at least not excluded from it—and help understand their specific contexts. Ensure that the below information is obtained from both men and women:

- **Demographic and socio-economic information:** Information should be collected on different ethnic groups living in the area, each ethnic group's characterization (income levels, land use patterns, livelihood strategies, ownership/access to land and natural resources, and the historical background as to why and how long they have lived in that area. Be mindful of how these characterizations differ according to gender and income levels). Pay attention to the considerable diversity that usually exists between and within ethnic minority groups and also how those groups may differ along gender lines: demographic and socio-economic information should be disaggregated per ethnic group and by gender.
- **Relationships among different ethnic groups:** Compile an overview of the historical relationship between the State, which is usually composed of one or more majority ethnic groups, and minority ethnic groups, as well as the relationship between and within different ethnic minority groups. This includes institutional settings that could have led to or reinforced marginalization of some ethnic groups over others: e.g., through laws and policies concerning land tenure, rural development, market incentives, gender, and the environment—including delineation of protected areas. Note also that some ethnic groups may intentionally marginalize themselves in the national system.

- **Local/traditional agro-ecological knowledge of marginalized ethnic groups:** This information should include farming practices, conservation practices, customary laws on use and protection of land and natural resources. Be mindful of possible conflicts between: agricultural innovations and local/traditional agro-ecological knowledge; and official laws and policies and customary laws.
- **Livelihood strategies of ethnic minority farmers, in particular, traditional livelihoods and the cultural and social norms, worldviews, beliefs, and values that underpin those livelihoods:** Are they in line with or do they clash with new State-endorsed trends in agriculture, e.g., introduction of monocultures, introduction of new cash crops, hybrids, and chemical fertilizers?
- **Past or current development or agricultural R4D projects, or other innovations introduced to the site, and whether or not they involved all ethnic groups:** It is important to gain an understanding of these initiatives, their outcomes, and lessons learned, as part of setting the background to the agricultural R4D project.

What to do c.1-2: Define key concepts and terms in the different languages in the research, particularly those used by the ethnic minorities, but also by all team members.

Working with ethnic minorities in the Greater Mekong region entails working with at least three languages: the language used by the ethnic minority(s), the language of local/national partners (who are usually from the ethnic majority group), and the language of the international researchers (English is usually chosen as the common language, but for many researchers English will not be their first language).

How c.1-2: Spend time among key research team members to ensure that the key terms and concepts are agreed upon and are meaningful in all languages involved in the R4D project. This is particularly important when some concepts or terms are based in one (usually foreign) language but are difficult to translate into other languages. If no direct translations exist, then make sure that all research team members are using the same definitions of key concepts and terms when talking about the project, not just among themselves but also in conversations with outside the team members. Making a glossary of key terms and concepts in different languages

Gender and ethnic dynamics of household decision making in hydro-power related resettlement in Bolikhamxay Province, Lao PDR by Nireka Weeratunge, Olivier Joffre, Sonali Senaratna Sellamuttu, Bounthanom Bouahom and Anousith Keophoxay

This study explored the underlying gender values, norms, and practices that influence the decision making patterns of households in the wake of resettlement. The study took place in an ethnic minority resettlement village in Bolikhamxay Province, Lao PDR, and focused particularly on decisions related to livelihood strategies. The village's main ethnic groups are the *Tai Maen* (55%) and *Tai Yor* (37%), with small numbers of *Tai Meuy* and mixed ethnic households. The qualitative methods used in the study included separate male and female focus group discussions (FGDs) and individual open-ended interviews with men and women from different ethnic minority groups that centered on livelihood trajectories and social network mapping.

We found the design of resettlement, compensation, and livelihood packages provided by hydropower companies tend to target a household as a unitary entity: in general, these measures tend to overlook which decisions are made jointly and which are gendered. Ethnicity also influences household decision-making in general, and the extent of male and female influence in particular. Different ethnic groups may show a preference for different livelihood activities, and vary in the degree to which household decisions are made jointly.

Hydropower companies typically focus on the material aspects of wellbeing within their livelihood packages—for example, by ensuring joint asset ownership and material equity in capabilities (such as education and health). However, in the context of hydropower resettlement—which often requires resettled groups to change their livelihood or replace it with a new one—it is necessary to disaggregate the costs and benefits in terms of gender and ethnicity. These costs and benefits need to be assessed in relational and subjective terms in addition to the material terms more typically addressed by hydropower companies. For example, our findings revealed that women's control over decisions on riverbank gardening and gathering of non-timber forest products had decreased: resettlement led to newly enforced land use patterns, with resultant material costs for both women and men. At the same time, women's weaving had increased, with material benefits for both women and men and relational and subjective benefits for women. Overall, the study helped provide insights into why some household members may accept (while others reject) livelihood options offered by hydropower development.

For more information:

Weeratunge N, Joffre O, Senaratna Sellamuttu S, Bouahom B, Keophoxay. 2016. Gender and household decision-making in a Lao Village: implications for livelihoods in hydropower development. *Gender, Place & Culture* 23(11): 1599-1614. doi: 10.1080/0966369X.2016.1219319.

with the involvement of qualified translators, and referring to this glossary often (especially when hiring interpreters), would be useful.

What to do c.1-3: Design research that is focused on marginalized groups and driven by demands of marginalized groups. When possible, have ethnic minority groups represented directly in project conceptualization and increase their capacities to be meaningfully involved in the conceptualization of the project and in R4D activities as part of the transdisciplinary team.

Once secondary and primary information is collected to get a better understanding of who the marginalized ethnic groups are, it is necessary to engage them in the design of the proposed research project through a consultative process. This entails listening to what local farmers want, what they don't want, and why; it also entails listening to what they need and prioritize, instead of imposing research ideas and interventions on them. Through such an

inclusive participatory planning process, you—as outsiders—can understand the visions and plans of villagers; in turn, the villagers will be empowered to participate meaningfully in research and interventions as part of the transdisciplinary team. Demand-driven research that focuses on the needs of marginalized ethnic minorities is the only way to ensure that the most marginalized people in the targeted community benefits from the agricultural R4D innovations. One of the primary reasons why many agricultural innovations are not adopted, or only adopted by better-off ethnic group(s), is because projects do not meet the needs of marginalized groups. At the same time, expectations—both the participants' and research team members'—of how the marginalized ethnic groups may benefit from the project should be kept realistic from the onset.



Thai ethnic women eating fruit in Son La, Viet Nam (ICRAF/Lisa Hiwasaki)

ii. Project Start Stage

CHALLENGE c.2: How do we reach ethnic minority groups when implementing a project?

What to do c.2: Acknowledge that there are two types of access—*physical access*, and *cultural and social access*—and take steps to obtain both through the right project team and participants.

Concerning *physical access*, it is necessary to get official permits, which can be difficult to obtain in some countries in this region whose governments are often politically sensitive, especially when working with ethnic minorities in border areas. It is necessary to identify appropriate local “gate keepers” who can act as an intermediary between the project, the State, and ethnic minorities, and permits need to be requested through them.

Concerning *cultural and social access*, the project team needs to include researchers with knowledge, experience and good contacts with ethnic minorities. Having researchers who are members of ethnic minority groups and/or some researchers who speak ethnic minority languages will help build trust between the project team and ethnic minorities. Having a glossary of key terms and concepts (see Challenge c.1-2) would also be helpful. Social scientists familiar with qualitative research methods can help with the collection of social and cultural information necessary to work with minority groups. Challenge c.1-1 includes some information on the kind of information which would be useful.

Identify the relevant project participants and stakeholders—the targeted population of the project—and understand the various social relations and power dynamics at work. These will be between different stakeholder groups; between different ethnic groups within a village or a commune or a district; within ethnic groups, including gender groups and the poor; and with outside actors. It is important to understand that there is usually considerable diversity within marginalized groups. Avoid “token representation” of ethnic minorities in the research project, and make sure that the people targeted by the project are fully participating throughout the process.

How c.1-3: Organize a local-level project design workshop that includes the identified marginalized ethnic groups and other local stakeholders. Areas of mutual interest to both the marginalized ethnic groups and the project team need to be clearly mapped out, as well as areas beyond the scope of the project that therefore cannot be tackled by the project. When selecting the workshop participants, be particularly mindful of internal marginalization e.g., the head of an ethnic minority village is less marginalized than poorer villagers, and their wives are likely to be even more marginalized. A village head cannot represent or speak for those more marginalized, and a man cannot speak for women, even if they are from the same ethnic group. Keep in mind that **the more marginalized someone is, the less likely s/he would be the ones proposed as participants of meetings by village heads and local agricultural extension workers.**

Inclusive participatory planning and vision-setting at the village scale will enable joint identification of needs and priorities specific to marginalized ethnic groups; in addition, it is crucial for short, medium and long term objectives of the agricultural R4D to be made jointly with all farmers. During such workshops, do not assume that ethnic minorities have high cohesion, avoid viewing a single ethnic minority group as a homogeneous / monolithic entity, and be sensitive to the power relations among and within the different ethnic groups. Through the use of facilitators and interpreters, create an environment that makes it possible for less powerful and marginalized groups to speak out.

“Red stamps and gold stars”: Implementing fieldwork in socialist Southeast Asia

In addition to the practicalities of obtaining the authorization to enter the field, in a compilation of work by social scientists who have done fieldwork in China, Lao PDR and Viet Nam, Turner (2013) raises several key issues in the preparation stage for field research: (1) positionality of the researcher and critical reflexivity, which affects the relationship between researchers and informants; (2) power relationships, in particular the roles of “gate keepers” (who enable researchers to access resources, knowledge and field research sites) and “minders” (people designated to accompany foreign researchers) in the research process; and (3) ethical dilemmas, especially when data and documents published could be considered offensive and thus have negative consequences on the lives and livelihoods of local informants or research assistants.

For more information:

Turner S, ed. 2013. *Red Stamps and Gold Stars: Fieldwork Dilemmas in Upland Socialist Asia*. Vancouver and Toronto: UBC Press.

How c.2: Design and plan research in the following ways:

- **Leave room for adaptability and flexibility about project activities in the project plan.** This will allow research to be adaptive and change direction depending on the needs of ethnic minority farmers, research progress, etc.
- **Schedule some open and unstructured time in the project plan.** “Transect walks” (a purposeful walk through a village with locals for the purpose of seeing the village through the eyes of a local), “participant observation” (accompanying locals on specific parts of their daily routine to develop a firsthand understanding of how local livelihoods fit into daily activities), and “informal conversational interviews” are methods that can be used to get acquainted with local people and environments, and are necessary to secure such time in the project plan and be included when submitting requests for research permits.
- **Secure time and process to obtain the right authorizations and logistical support to work in certain areas, and with ethnic minorities.** This necessarily entails collaborating productively with both ethnic minorities

and government entities. Plan ahead, as the process can take a long time (minimum a few weeks), especially if the research involves foreign researchers and is in sensitive areas such as national borders or recently-relocated villages.

- **Engage local organizations and/or social scientists who already have a relationship with the ethnic groups in your research site.** They can be identified through stakeholder analysis, described below in Challenge c.3. They can connect you and your team members with ethnic minorities and facilitate their participation, in ways that respect cultural and religious norms and practices. They can also advise you on ways to interact with ethnic minorities in appropriate ways.
- **Organize a stakeholder workshop to identify project participants.** Participants in such a meeting must be carefully chosen, and the project team needs to ensure that marginalized ethnic groups are included in this meeting by local authorities who are in charge of inviting participants. At the kick-off meeting, present the project objectives and activities, and choose farmers to be involved in the project according to some criteria. The usual way of choosing participants—to ask local government or village heads to designate “volunteers”—often results in further marginalization of some ethnic groups, women, and the poor. Discuss with the village heads and/or local authorities to see how the project can reach out to the poorest and the most marginalized members of the community. If possible, seek volunteer project participants directly from the villagers. Above all, ensure that the selection process does not create tensions, or create new local inequalities.
- **Throughout the project, make sure that local collaborators don't get into uncomfortable or conflictual situations by being involved with the project.** The project team must be conscious of all kinds of problems or disorders that can be created by the project, as it injects sought-after resources into resource-poor areas, both directly and indirectly. See also Challenge c.3 below.

Engaging resettled ethnic minority groups in piloting new livelihood opportunities in Kon Tum Province, Viet Nam by Sonali Senaratna Sellamuttu

In the development of hydropower schemes, displaced local people may be financially compensated for their losses. Despite that compensation, adapting to a new place and finding viable livelihood activities can present significant challenges. This project focused on optimizing reservoir management for local livelihoods by exploring cultivation of a short-duration cassava variety. The project took place in the drawdown area of the Yali reservoir in Kon Tum province, Viet Nam, which is populated by both the *Kinh* (Viet Nam's majority ethnic group) and the *Jarai*, an ethnic minority group.

During the selection of farmers for this particular project, it was apparent that prevailing local circumstances had an effect on the household selection process: local beliefs and norms and the limited availability of seedlings of the new cassava variety both had an impact. Local leaders tended to choose farmers who appeared "open to innovation and to taking risks," and could afford to invest in the necessary inputs. This resulted in a situation where the initial project beneficiaries tended to be farmers who were already at an economic advantage. None of participants were from the *Jarai*, who were included only in the second year of the trial, following successful results in the first year.

Similarly, participants in the training programs conducted in association with the livelihood pilot were mostly *Kinh*, though some *Jarai* farmers were included as well. Project representatives strongly felt that the group should have been more representative of the population's ethnic composition, and that the participation of marginalized groups should be encouraged rather than discouraged; however, the local leaders who drove the selection process felt that representatives of ethnic minority households lacked adequate language skills and were not sufficiently open to innovation or inclined to follow technical recommendations. Based on the local administrative and political context, it was difficult for the project to change the selection criteria in a way that prioritized marginalized communities.

Several approaches were adopted by the project to overcome some of these constraints and ensure that the *Jarai* ethnic minority group could also benefit from the cassava livelihood pilot. For example, a staff member of the Department of Agriculture and Rural Development (DARD) of the *Jarai* ethnic group was appointed to supervise activities under the project, including training and communication between district and provincial levels. During the training program, visual aids were used, which proved to be especially helpful in overcoming language barriers or limited technical knowledge and found particularly useful when engaging with the *Jarai*. Furthermore, in the case of the *Jarai* farmers engaged in both the pilot and training sessions, it was found more effective when the younger generations with a better understanding of Vietnamese (spoken by *Kinh* but not by all *Jarai*) were involved. This was important to note for future training and for up-scaling of the project.

For more information:

Senaratna Sellamuttu S, Joffre O, Nguyen Duy P, Pant J, Bouahom B, Keophoxay A. 2014. Hydropower development and livelihoods: a quest for a balanced approach through research and partnerships. From the proceedings of the Fifth International Conference on Water Resources and Hydropower Development in Asia, Colombo, Sri Lanka. March 2014.

Nguyen Duy Phuong, Nguyen Dinh Thong, Nguyen Thi Van, Luong Thi Loan, Din y, Senaratna Sellamuttu S, Chu Thai Hoanh. 2016. Assessment of benefits to the different gender and ethnic groups from MK1 project pilots in Yaly HP area for scaling-up livelihood enhancement in the Mekong Region. CGIAR Research Program on Water Land and Ecosystems (WLE), Mekong Focal Region report.

CHALLENGE c.3: How do we engage marginalized ethnic groups in a way that transforms the political, economic, and social systems, at the same time minimizes detrimental impacts on the marginalized at the local level?

What to do c.3: Pay special attention to the changes created outside the activities of the project, and take efforts to understand local systems.

Because the project is a new element introduced to the local political, economic, and social system, the project team must be

aware of and pay attention to the changes that take place in a site that are not related to the project. For that, it is necessary to understand local power dynamics and the role played by local interest groups, whether formal or informal.

How c.3: Clearly map the stakeholders and the relationships between them. Implement stakeholder analysis, including gender analysis, to understand the local political system, power dynamics (including who has control over resources), and existing conflicts at different scales (within households, within villages, and

village-outside). This should be complemented by assessments of the different needs and capacities of specific marginalized groups.

Stakeholder analysis—which consists of identifying stakeholders, differentiating between and categorizing stakeholders, and investigating relationships between stakeholders—can be done through mixed methods, consisting of questionnaires complemented by in-depth qualitative research [20, 21]. Understanding local beliefs and the customary institutions that govern local social relationships will provide key knowledge that allows the project team to know the best ways to deal with each stakeholder. Research using ethnographic methods to produce first hand in-depth knowledge, and—when it is available—reading ethnographic literature on the ethnic group(s) in question can help the research team to understand and deal with the local social, political and cultural system. Only after this is done, can the project start to define its place and its position in the social, political and economic local system.

People to be identified for the project are:

- **Key stakeholders:** Stakeholder categories include farmers (particularly the more marginalized ethnic minority farmers, women, and the poor), researchers (local & international), NGOs (local & international; especially NGOs which focus their work on ethnic minorities), government, policy makers, and formal and informal groups (village youth groups, women's union, farmer groups, traditional village committee). As you determine which stakeholders can be effectively engaged, be aware that many people “wear multiple hats”: ethnic minorities could be government employees, farmers might be members of NGOs, and so on.
- **Potential “co-learner experimenters” and people ready to test new innovations:** This should include both male and female ethnic minority farmers. Identify those who are more open to new ideas and innovations, but make sure they are not too different for everyone to learn from. “Innovative farmers” can become key persons to implement the project and to transfer knowledge to both men and women.
- **Potential participants of R4D:** Look beyond farmers and other stakeholders who always participate in projects (such as the

village head's extended family members) as they are usually from the ethnic majority group or from a selected group of ethnic minorities, and not marginalized groups.

- **People who are typically excluded/marginalized:** Pay special attention to those who are typically excluded, such as ethnic minority groups who live in more remote areas, women, the poor, etc.
- **Potential research collaborators:** Local partners and/or social scientists who have worked with ethnic minority groups and who have already established long-term engagement with ethnic minority farmers.

iii. Project Implementation and Maintenance Stage

CHALLENGE c.4: How do we effectively maintain marginalized groups' interests and engagement in project activities, including monitoring and evaluation (M&E)?

What to do c.4: Make concerted and consistent efforts to gain and keep the trust and interest of marginalized groups throughout the entire duration of the project by ensuring they have ownership of the project, and the research topics and problems are of interest and relevance to them.

It is often the case that researchers and donors do not go beyond just looking at numbers of ethnic minorities in the list of participants when monitoring participation of ethnic minorities in projects. However, to go beyond token representation and ensure ethnic minorities benefit fully from agricultural R4D activities and interventions, it is important to ensure that they are meaningfully engaged.

How c.4:

- For trials and surveys:
 - Instead of only working with ethnic minority farmers who speak the official language of the country, secure interpreters who can facilitate communication between researchers and ethnic minority farmers. See also Challenge c.1-2 above.
 - Provide context-specific incentives: these should not be limited to money, but should also include activities like communal meals—which can double

- as a means to build relationships with the community. Incentives should help to ensure that ethnic minorities and women are voluntarily participating, rather than being coerced—e.g., that they are not merely being asked to participate by a village headperson.
- For focus group discussions (FGDs), workshops, and training sessions:
 - In group settings, create an environment which enables ethnic minorities—and especially women in ethnic minority groups—to speak out without fear of repercussions, to ensure that their voices are heard and incorporated. Choosing skilled facilitators (men for FGDs with men, and women or FGDs with women) from the targeted ethnic group(s) and strengthening their capacities is thus very important.
 - Have a facilitator who speaks the language of each ethnic minority group present, or hire interpreters who are well familiar with the key terms and concepts in the languages involved. See also Challenge c.1-2.
- Ensure the training meets the needs of ethnic minority farmers, in particular women, by conducting training needs assessments and obtaining basic information (see Challenge c.1-1 above) beforehand, to understand separate and joint needs of different farmers, e.g., the specific needs of women and men, and the specific needs of different ethnic minority groups. This differentiation is important for project implementation: if women are not involved with land preparation, it may not be useful to ask women to come to a training session on that topic. However, in some cases, it can be useful to involve spouses if the intervention targets women, as this can help enhance the husbands' understanding and facilitate women's participation.
- Consider how to make use of ethnic minorities' traditional ways of learning and their unique paths to innovation. Typical classroom-type training sessions are generally a very different way of learning for them. Whenever

Understanding socially constructed challenges in agriculture of an ethnic minority group in Yen Bai Province, Northern Viet Nam by Nozomi Kawarazuka

Over the past two decades, *Dao* ethnic minority farmers in Northern Viet Nam have adopted some new technologies such as high yielding industrial cassava varieties and tree crops. To investigate how this worked along gender lines, this study asked: how do gendered social values and practices influence the ways *Dao* men and women engage in modern agriculture? To explore this question, we conducted in-depth interviews with 15 women and 13 men at different life stages and of different economic statuses in a single-ethnic village of “*White-Trousers Dao*” in Yen Bai.

Dao men and women continue to use their own knowledge-sharing systems, even after modernization of their agricultural practices. They tend to trust information from their family and relatives and to adopt new practices only after confirming positive outcomes with their own eyes: new technologies are slow to spread across the entire village. On top of this, there are strong social stigmas attached to debt, so *Dao* farmers—men in particular—tend to be reluctant to borrow money. In the case of cassava, however, *Dao* men are willing to go into a small amount of debt related to cassava production since they have seen how cassava is a viable crop in this particular context.

Current farming practices require intensive male labour work, making it difficult for poor families with a shortage of male labour to invest in new crops and technologies. This is because *Dao* women access resources through the family as a collective institution and must depend heavily on manual labour. Family relations are very important in the extent to which they can invest in agricultural resources. Hence, without considering such social contexts, mainstream agricultural development may contribute to internal marginalization within the marginalized community.

This case study thus shows that exploring social dimensions of agriculture helps develop context-specific approaches to facilitating uptake of new technologies in ways that fit well with the social context of the ethnic minorities.

For more information:

Kawarazuka N, Thuy CTL. 2016. *Understanding socially constructed challenges of cassava farming for ethnic minorities: a case study of a Dao ethnic group in Northern Vietnam*. Research Program on Integrated Systems for the Humid Tropics. CGIAR. Open access: <http://humidtropics.iita.org/share/s/J0yQyX5vRTCWqR4I-Tjgvg>

Towards soil erosion mitigation and sustainable agriculture in Northern Lao PDR: Participatory on-farm research using a gender equity lens in the Houay Dou catchment by Sonali Senaratna Sellamuttu, Bounthanom Bouhom and Anousith Keophoxay

Soil erosion is one of the major issues impacting sustainable agriculture in the sloping lands of Northern Laos. This problem is currently magnified by the spread of commercial tree plantations—e.g., teak trees—replacing traditional rice-based shifting cultivation systems. Soil erosion has led to negative impacts both on and off the research site.

In collaboration with farmers and agricultural extension services, research conducted under the Humidtropics CGIAR Research Program was implemented to test and develop innovative on-farm land management practices that improve stream water quality while sustaining the fertility and productivity of erosion-prone soils in the mountains of Northern Lao PDR. Ten different types of land use in the Houay Dou catchment were monitored for runoff and soil erosion rates.

Farmers working in the Houay Dou catchment belong to *Lao-Tai* ethnic majority group and *Hmong* and *Khmu* ethnic minority groups. Using qualitative, participatory approaches, we investigated the different perceptions and preferences the farmers have in terms of the different land uses and agricultural practices adopted in the catchment. The findings were disaggregated based on gender, ethnicity and wealth rank. Data was collected from three villages (Park Thor, Houy Khong and Na Kha).

It appears that men and women had different views on the importance of different land use practices and their preference rankings therefore differed. For example, in Pak Thor village, men ranked the most important land use as banana cultivation (as there was a good market to sell their product and this contributed to their household income and they could also use the produce they did not sell for home consumption), whereas women ranked fallow land as their priority because it was the main area used to collect non-timber forest products (NTFPs) as part of their livelihoods and this was considered particularly important by women as they are the primary collectors of NTFPs. There were also differences in preference ranking of land use practices depending on the village and the key land uses available to local people. In Na Kha village for example where approximately 85% of the 47 households were found to be engaged in teak plantations, as expected this land use type was ranked high by both men and women. It was ranked the first preference by men (because of the current high demand for teak and the villagers can earn high income from teak plantation as a good source for household saving) and second by the women (one reason given is that it takes time to obtain benefits as one needs to wait until the teak trees mature).

Furthermore, it appeared that better-off households have preference for teak plantation with larger areas and are not interested in upland rice, while poor households who have limited land prefer upland rice cultivation and NTFPs for home consumption. In relation to ethnicity, the *Hmong* gave preference to land use practices involved in the cultivation of maize, broom grass, rubber and banana, *Khamu* appeared to prefer upland rice cultivation, while *Lao-Tai* appeared more interested in teak plantations.

It was noted that soil erosion was not an issue that was specifically brought up by the farmers. However it was encouraging to note that the production of broom grass was ranked relatively high by both men and women since this land use practice has been demonstrated to have the lowest erosion rates from the biophysical studies. In Na Kha village, for example, broom grass was ranked second by men and first by women while in Pak Thor village, broom grass was ranked second by men and third by women in the focus group discussions.

This case study demonstrates that gender, wealth and ethnic grouping influences agricultural decision-making. Overall, it is clear that a nuanced approach will be required when informing farmers how to select land use types that can limit erosion and preserve soil fertility.

- appropriate, use visual aids, which can help overcome language barriers and limited literacy or technical knowledge.
- Hold separate meetings and develop interventions separately for different ethnic groups, to ensure interventions and training meet the needs of each group, and can be done in ways that promote their learning, e.g., in the ethnic group's own language and own way of learning. Similarly, consider holding separate meetings and developing separate interventions for men and women.
- As mentioned above under trials and surveys, provide context-specific incentives.
- When developing or introducing interventions:
 - Jointly develop locally-generated technological and institutional innovations derived from a combination of scientific and local knowledge systems. This can be done by obtaining information on local and indigenous agricultural and ecological knowledge, and seeing how this can be integrated with agro-ecologically

- appropriate technological innovations. These innovations can be built on information collected at the project conceptualization stage (see Challenge c.1-1).
- Scale out innovations (technological or institutional) tested elsewhere only after:
 - giving farmers full information of pros and cons;
 - obtaining the willingness of local people to accept and then adopt innovations, and if necessary, building their capacities to adopt them;
 - ensuring that the innovation is based on local culture, knowledge, aspirations, capacities;
 - carefully considering what kind of impacts the new innovation may have on the local culture and social relations within the village;
 - considering the existence and/or distribution of assets (e.g., economic, natural (water, access to farming land, etc.), social and political (power, prestige, networks), etc.) that enable adoption of the innovation;
 - assessing the relevance of the new innovation in the local economic, socio-cultural and ecological contexts; and
 - considering the role of researcher as facilitator of technological and/or social innovations that can help them meet their needs.
- Throughout the project cycle:
 - Establish multi-stakeholder processes—e.g., through multi-stakeholder innovation platforms—through which systemic problems and opportunities supported by systems analysis are prioritized; project entry points that require social and technical innovations

Understanding gendered concepts and processes of agricultural innovation in Dien Bien Province, Northern Viet Nam by Nozomi Kawarazuka

Agricultural interventions in ethnic minority communities in Viet Nam have often shown that the introduction of new technologies can partially close the agricultural “technology gap.” However, men tend to accept the use of new technologies more readily than women, as purchasing seeds and other agricultural inputs are often closely associated with men’s existing gender roles. If agricultural interventions are to support women and men equally, it is important to understand gendered social mechanisms of innovation instead of looking solely at overall production levels.

This study asked how gender relations shape agricultural innovation, and how subsequent changes in production reconfigure gender roles and relations within the family and the village. To address this question, fieldwork was conducted in a black *Thai* ethnic minority village in Dien Bien Province. We carried out in-depth interviews with 12 men and 17 women from 29 households.

Most black *Thai* women perceive themselves to be in a lower position of power than their husbands and in-laws. They believe this arrangement was desirable for *Thai* families. Social expectations of wives have been increasingly associated with earning incomes through innovation in livestock, from which women eventually gain their status in the family. To achieve this, women start new activities on a very small scale to ensure that potential failures do not have any serious repercussions for their livelihoods. This is to avoid risk: success or failure in agriculture can influence their position in the family, and affects their family’s reputation. Women also depend on their own family networks and support instead of their husbands’, so that success can be more clearly attributed to women’s capacities and efforts, thereby improving their social and familial position.

Agricultural interventions for supporting women need to take account of the underlying power relations that shape women’s strategies and opportunities. Agricultural research and interventions conducted without a gender lens run the risk of continuing to support wealthy men whose concepts of innovation fit well with scientists’ notions of and interests in innovation instead of equitably supporting all parts of a village. This case study shows that taking a gender lens is also important when engaging with ethnic minorities.

For more information:

Kawarazuka N. 2016. *Gendered processes of agricultural innovation*. Research Program on Integrated Systems for the Humid Tropics. CGIAR. Open access: <http://humidtropics.iita.org/share/s/QmshLQRbQaew1YrGamUiKA>

Mixing methods for holistic project evaluations: Revisiting a home garden project through a qualitative lens in Nepal's mid-hills and terai (plains), Gulmi and Rupandehi Districts by Marlène Elias and Miranda Morgan

The project entitled “Enhancing the contribution of home gardens to on-farm management of plant genetic resources and to improve the livelihoods of Nepalese farmers” was led by Bioversity International and implemented by Nepalese NGO LI-BIRD between 2002 and 2013. An evaluation using primarily quantitative methods concluded that the project had made a substantial contribution to biodiversity conservation and livelihoods. A subsequent qualitative study deepened understanding of how and why the project also improved gender equality and social inclusion; illuminating the value of combining qualitative and quantitative methods in project evaluations based on four considerations.

First, the qualitative analysis helped contextualize the project within the larger system in which it was embedded, pointing to a confluence of factors external to the project (e.g., the acquisition of electricity, water pumps and mills) that facilitated the livelihood changes that had been attributed to the project. Second, while quantitative data excels at identifying trends, qualitative research is crucial for identifying those trends. Qualitative data revealed the non-linear process of change, including the fact that transformations in gender and social relations often occur when the various parties involved in research—e.g., women and men, members of different ethno-religious or socio-economic groups—are encouraged to interact with one another. Third, the qualitative analysis illuminated unanticipated project outcomes, which participants themselves perceived as meaningful. For instance, both male and female Dalits (considered a low caste) expressed that some of the biggest changes they experienced were associated with relations across castes, which had not been anticipated and hence not measured using pre-defined indicators. Using open-ended qualitative methods helped capture the importance of the project in participants' own terms. In this light, the project's intellectual and emotional benefits emerged as even more significant to female and male participants than the material outcomes of the project. Finally, qualitative research allowed local interests to be identified and built upon when planning future initiatives. Hence, if the purpose of impact assessments is not only accountability but also learning, combining quantitative and qualitative methods is needed to enable the breadth and depth of analysis required in the learning process.

For more information:

Elias M, Morgan M. 2016. Mixing methods for holistic project evaluations: revisiting Nepal's 'Home Garden Project' through a qualitative lens. *Bioversity International series of Impact Assessment Briefs no. 18*. Rome: Bioversity International.

Elias M, Morgan M. 2014. Evolution of gender relations among Nepalese farmers. Available online: <http://www.bioversityinternational.org/news/detail/evolution-of-gender-relations-among-nepalese-farmers/>

Gotor E, Martin W. 2013. Home gardens in Nepal. *Bioversity International series of Impact Assessment Briefs, no. 10*. Rome: Bioversity International. Available online: <http://www.bioversityinternational.org/e-library/publications/detail/home-gardens-in-nepal/>

Carter J, Byrne S, Schrader K, Kabir H, Uraguchi ZB, Pijls N, Fendrich P. 2014. Learning about women's empowerment in the context of development projects: Do the figures tell us enough? *Gender and Development* 22:327–349.

- should be jointly identified. Regular platform meetings should be held to share agricultural R4D research results and build members' capacities. Engage a facilitator who can ensure marginalized groups are represented and are able to participate meaningfully in these processes.
- Work closely with ethnic minority farmers so issues and changes they want in the future can be jointly identified, from the minority's perspective.
- Include tangible results that can be achieved in the short term at the same time as a more in-depth research is being undertaken.
- Build trust with ethnic minorities, by making regular visits to field sites, and participating in local social activities.
- If the project has not been jointly developed with the ethnic minority groups, clearly communicate the project's outcomes (i.e., do not create false expectations) and keep them updated on research progress.
- Negotiate with donors if possible to allow research to be adaptive and change direction depending on farmers' needs, the progress of the research, etc.
- During M&E, include locally-defined indicators that are jointly defined by local stakeholders, including marginalized groups. In addition

Building trust in the field by Christian Culas

An anthropological study conducted for three years between 2010 and 2013 in a *Tay* ethnic minority commune in Lao Cai Province, Viet Nam, explored different ways of the local perception and understanding of 20 development projects. The commune's main ethnic groups are the *Tay* (95% of the population); other groups, the *Dao*, *Kinh*, and *Nung*, comprise 5%. The qualitative methods used in the study included participant observation, individual open-ended interviews with stakeholders of different projects, and social network mapping related to project participation.

Our findings showed that in majority of the projects, project team members only visited the target village once or twice during the project period. This can be changed for the benefit of all stakeholders if external staff modify their schedules to spend more time around the project site. We noted that the most popular projects by the villagers are always those in which project members spend “non-project” time with villagers. For example, when villagers remember the names of project staff, it is a strong indication that the project is integrated into the local social world.

A successful project is one which has been incorporated into local social life; if possible, project staff should attend social events (weddings, local banquets and parties). We found that when the project is able to integrate some elements of the local social life, the relationships between the project and local people become stronger and more flexible. In line with the local way of holding meetings, at the same time organizing official meetings with the “right” team members—including people from the local party members, local government officials, etc.—it would be useful for a project to have informal meetings (outside the official meeting place, in a private home) to learn about issues that do not come up in formal settings and to meet people who do not come to these formal meetings.

For more information:

Culas C, Pannier E. 2014. *Final research Report (2010-2013): socio-anthropological study of development project and social change in an ethnic commune in Northern Vietnam*. Paris: French Development Agency.

to quantitative indicators, include qualitative indicators which may be difficult to measure but can be captured through observational techniques. These include indicators that can monitor gender and other social relations, and qualitative milestones specific to marginalized groups.

- Incorporate reflexive and iterative M&E, which involves marginalized groups, and enables both researchers and research participants to learn from feedback and from mistakes made in the field.
- Be mindful of the fact that impacts of the project can go beyond the anticipated impacts, e.g., to other projects or activities taking place in the research site, and make sure that these impacts do not contribute to internal marginalization of certain groups within the ethnic minority group, or further marginalization of other groups.
- Ensure sustainability of the project and its outcomes by linking farmers with relevant stakeholders and building investment in the project's purpose.

CHALLENGE c.5: How do we implement and maintain project activities that engage ethnic minorities under budget constraints?

What to do c.5: Mobilize investment and contributions from project participants, including ethnic minorities, counterparts, and partners (i.e., NGOs, enterprises).

It is often the case that a project may not have the full budget in the actual implementation phase, due to budget cuts from donors or other external circumstances. To compensate for the reduced budget, it is worthwhile to look for additional investments and contributions from the project participants by mobilizing their available resources and funding.

How c.5: Organize a workshop with project participants, in order to:

- identify and prioritize activities of most interest and relevance to participants;
- redesign the project according to prioritization by participants, and as necessary, redesign (downsize) proposed activities; and
- identify participants' resources and willingness to contribute resources

(including in-kind contribution of their time and equipment/inputs necessary) to the implementation of redesigned activities. Such contributions can also improve participant commitment and project sustainability.

iv. *Scaling out and up*

CHALLENGE c.6: How can we ensure that the agricultural R4D project has positive development impacts on ethnic minorities, and the impacts are widespread?

What to do c.6: Establish a commonly-agreed and compelling development challenge with the marginalized ethnic groups(s) and other key stakeholders (including the relevant authorities) at the outset, as well as the strengths they can bring to tackle it, and the opportunities that exist to make progress. Develop a theory of change for the project on this basis (see Challenge c.7), that also takes into account that agricultural R4D achieves impact through three interlocking impact pathways, through: the development and adoption of technology; developing capacity to innovate; and, influencing policy.

The capacity development pathway is likely to deliver most results in combatting marginalization because its causes are more to do with a lack of capacity than lack of technology. Research builds capacity to innovate through the collaborative research process. The capacities it builds includes:

- new technical skills, e.g. how to carry out experiments and analyze the results;
- self- and collective- efficacy;
- ability to assess options and identify key system challenges;
- ability to go through iterative visioning, planning and reflective learning cycles;
- capacity to link to other actors and to use linkages strategically in support of own plans;
- enhanced capacity for effective collective action; and,
- enhanced leadership skills [22].

Building capacity to innovate will increase the likelihood of unexpected outcomes as well as expected ones. Experience shows that it is often the unexpected and opportunistic outcomes that lead to real

impact. The project should monitor for these and retain sufficient flexibility to support beneficial ones.

With respect to the technology development and adoption pathway, development partners and relevant government and extension services who are part of the transdisciplinary research team would take the lead role in ensuring that the research findings are widely understood and adopted by the marginalized group(s). They also play a key role in ensuring that these technologies/ activities/interventions are scaled out in a suitable manner to other ethnic groups.

With respect to the policy influence pathway, it is important to present to decision makers and policy makers evidence-based research findings and methods to demonstrate the importance of engaging with ethnic minorities: project evidence should provide policy makers with information for scaling and institutionalization of innovations.

How c.6:

- Carry out a stakeholder workshop, including minority groups, to agree on the overall development challenge, identify stakeholders' strengths and opportunities to tackle it.
- Involve development practitioners and other relevant local stakeholders such as government extension services in the transdisciplinary team, and get their inputs from the beginning regarding strategies and mechanisms that are already in place or can be adapted to potentially scale out the proposed technologies/interventions/ activities, particularly among marginalized ethnic groups. Describe this explicitly as part of the project's communication and uptake strategy.
- Use this input to develop a theory of change for the project that makes its causal assumptions explicit.
- Carry out a mid-term review to identify emerging outcomes and positive feedback loops, both expected and unexpected. Use these findings to revisit and provide detail to the original theory of change. Make appropriate course corrections including providing support to emerging feedback loops and outcomes and making the project's outreach and communication

strategy more specific. In some cases, generic stakeholder groups can be replaced with specific organizations, or better, the names of specific people.

- Develop an understanding of the extent of the need and demand for the technologies, interventions, or other project activities amongst ethnic minority groups in the neighbouring communes, districts, and provinces; assess whether or not an enabling environment exists for scaling out. Consultations with relevant partners and simple GIS-based decision support tools can be used in this context.
- Take steps to understand the best way of ensuring farmer-to-farmer learning, taking into account that how information flows and how effectively it is exchanged may be shaped by pre-existing social networks and relations. As much as possible, make use of ethnic minorities' traditional ways of learning and innovations.
- Identify potential “champions” at appropriate levels at the beginning of the

research, who can help with scaling out among ethnic minorities and also with scaling up. This can be a high-level politician with a research background, policy-makers, local authorities or local elites, or members of Indigenous People's / ethnic minorities' groups.

- Organize policy dialogues and field visits for key local, regional, and national policy makers to project sites.
- Identify and participate in existing national processes such as sector working groups, national forums, and donor and development meetings: participation in these processes will help inform decision-makers of research findings and the importance of engaging with marginalized ethnic groups.
- Include a budget for a communications and uptake coordinator, who could promote project interests and generate knowledge both proactively and reactively during the course of the project. The uptake coordinator should invest adequate time

Effectively communicating research findings by Marlène Elias and Ewa Hermanowicz

According to Elias and Hermanowicz (2016), it is important to consider four factors when preparing to communicate research findings:

- *Understand your audience* by identifying groups who will be using your findings from the very start of the research process. Consult both women and men from these groups to hone in on stakeholder information needs and perceptions. Also, share your findings with different types of actors, including groups that can take up, but also further share the research results.
- *Showcase relevant findings*, e.g., by gender and/or by ethnic group, by unpacking, analyzing, and representing data according to relevant variables of analysis—these could be ethnicity, gender, or age, for example. Images and videos used to illustrate research findings should include both women and men and include members from all relevant ethnic groups.
- *Share research findings with differentiated stakeholders through relevant channels* by considering where different target audiences obtain their information, and use those channels for outreach. Use appropriate language that is matched to the level of technical understanding of the target audience. Adopt diverse and mixed methods of communication to reach different ethnic groups and both women and men—e.g., visual materials such as illustrated pamphlets, photographs and videos, and verbal methods of transmitting information.
- *Monitor and evaluate outreach strategy*: whatever communication activities are chosen, they should be monitored and evaluated for effectiveness in reaching the different target audiences to strive for continuous improvement and fine-tune the communication strategy.

All these must be adequately planned and budgeted for early on in the research process. By ensuring that local women, men, and marginalized groups are able to equitably access research findings, it is possible to support their empowerment—an essential part of the R4D process.

For more information:

Elias M, Hermanowicz E. 2016. *Practical tips for communicating findings in a gender-responsive way*. Rome: Bioversity International.

to promote project uptake to the degree needed: this requires additional time and effort, as well as a specific skill set.

CHALLENGE c.7: How do we ensure that our project is directly linked to the outcomes that marginalized ethnic groups need?

What to do c.7: The identification of a common development challenge with marginalized groups, as described above in Challenge c.6, ensures that the project goals match their needs. The subsequently-developed theory of change shows how project activity and outputs are expected to contribute to these goals. The project will need to establish a monitoring and evaluation system to track these assumptions and intentions as implementation unfolds, and adjust accordingly.

How c.7:

- Develop a theory of change in a participatory manner with project staff, partners, and key stakeholders. The process helps identify key actors to target: who needs to be influenced, how they ought to be influenced—e.g., bringing about changes in their knowledge, attitude, or skills—and strategies to do this. Participatory identification of a theory of change helps build ownership of the project by implementing partners.
- Further refinements can be made to the theory of change mid-term, after a more in-depth understanding is gained at the research site, after specific relationships and partnerships are initiated and early outcomes have been identified.
- In addition to a mid-term review, plan for annual after action reviews for the project

to critically reflect on its progress over the year in terms of what is working well, not so well and what to change in the coming year. It may not be practical to carry out these reviews with the entire team; it is thus important to plan how and when reflections and iterative project modifications will occur.

- Outcome evidencing is a suitable method for carrying out a mid-term revisiting of project theory of change. The method identifies outcomes to which the project is contributing and how it is doing so.

3 Resource implications

Transdisciplinary action research has different resourcing and timing requirements to normal agricultural R4D. Start-up takes longer to gain access, engage, build trust and connections and to identify research issues that motivate participation from a range of actors, in particular ethnic minorities and other marginalized groups. Team composition will be different, involving a broader range of disciplines and more “soft” skills, in particular facilitation.

Given the importance of engagement and creating safe spaces to work on issues of mutual interest, the number and type of events will be greater, and they will last longer. See above index (table 1) for the kind of activities, methods, and tools that can be used to facilitate participation and engagement.

While front end costs maybe higher, and research outputs slower to come, return on investment can be expected as a result of the motivation, trust, linkages, platforms built, etc. that evidence shows [23] can last many years after the project finishes. The additional time and costs required to work with marginalized

Outcome evidencing: A method for enabling and evaluating program interventions in complex systems by Rodrigo Paz-Ybarnegaray and Boru Douthwaite

Outcome evidencing is a rapid and participatory evaluation approach built on a complexity-aware understanding of how change happens. The approach assumes that programs achieve impact when the resources they provide find resonance with key stakeholders engaged in on-going or emerging areas of change. The approach is designed to (a) identify areas of change to which the program is contributing; (b) within them, identify clusters of outcomes, both expected and unexpected; (c) develop causal chains that link the program activity and outputs to emerging outcomes; and (d) compare those links with the program's original theory of change. The information is then used to show accountability to stakeholders as well as to derive lessons and propose actions to strengthen the capacities of the implementing teams and the implementing organizations as a whole.

For more information:

Paz-Ybarnegaray R, Douthwaite B, (in press). Outcome evidencing: a method for enabling and evaluating program interventions in complex systems. *American Journal of Evaluation*.



A Thai ethnic minority boy in front of his house in Son La, Viet Nam (ICRAF/Lisa Hiwasaki)

groups may not fit with the donor's current orientation toward "efficiency" and short time frames of projects. Discuss and negotiate with donors and host institutions about this different dynamic that such an agricultural R4D entails. If there is no institutional or donor support, transdisciplinary action research that engages ethnic minorities would not be worth starting.

4 References

- [1] Rerkasem K, Yimyam N and Rerkasem B. 2009. Land use transformation in the mountainous mainland Southeast Asia region and the role of indigenous knowledge and skills in forest management. *Forest Ecology and Management*, 257:10, 2035-2043.
- [2] Enfield NJ. 2005. Areal linguistics and mainland Southeast Asia. *Annual Review of Anthropology* 34:181-206.
- [3] Fox J, Fujita Y, Ngidang D, Peluso N, Potter L, Sakuntaladewi N, Thomas D. 2009. Policies, political-economy, and swidden in Southeast Asia. *Human Ecology* 37:305-322.
- [4] Cramb RA, Colfer CJP, Dressler W, Laungaramsri P, Le QT, Mulyoutami E, Wadley, RL. 2009. Swidden transformations and rural livelihoods in Southeast Asia. *Human Ecology* 37:323-346.
- [5] Mertz O, Padoch C, Fox J, Cramb RA, Leisz SJ, Lam NT, Vien TD. 2009. Swidden change in Southeast Asia: understanding causes and consequences. *Human Ecology* 37:259-264.
- [6] Than M. 1998. Introductory overview: development strategies, agricultural policies and agricultural development in Southeast Asia. *ASEAN Economic Bulletin* 15:1-12.
- [7] Drahmoune F. 2013. Agrarian transitions, rural resistance and peasant politics in Southeast Asia. *Journal of Current Southeast Asian Affairs* 32:111-139.
- [8] Pham Quynh Phuong, Hoang Cam, Le Quang Binh, Nguyen Cong Thao, Mai Thanh Son. 2013. *Thiểu số cần tiến kịp đa số - Định kiến trong quan hệ tộc người ở Việt Nam* [The minorities need to catch up with the majorities – Ethnic discrimination in Vietnam]. The Gioi Publisher.
- [9] Minh TT. 2015. Draft report: Addressing social inequality in agricultural systems research in Vietnam. Report presented at the First Workshop on project Transforming social inequality: Advancing marginalized groups in agricultural research for development in the Central Mekong, Hanoi, Vietnam, 8-9 September 2015.
- [10] International Livestock Research Institute. 2014. *A situational analysis of agricultural production and marketing, and natural resources management systems in northwest Vietnam*. Nairobi, Kenya: International Livestock Research Institute for CGIAR Research Program on Humidtropics.
- [11] Hammond J, Yi Z, McLellan T, Zhao J. 2015. *Situational Analysis Report: Xishuangbanna Autonomous Dai Prefecture, Yunnan Province, China*. ICRAF Working Paper 194. World Agroforestry Centre East and Central Asia, Kunming, China, 2015
- [12] King VT. 2008. *The sociology of Southeast Asia: transformations in a developing region* (Vol. 3). Copenhagen: NIAS Press.
- [13] Kelly PF. 2011. Migration, agrarian transition, and rural change in Southeast Asia: introduction. *Critical Asian Studies* 43:479-506.
- [14] Déry S. 2004. *La colonisation agricole au Vietnam*. Québec: Presses de l'université du Québec.
- [15] Badiani R, Baulch B, Brandt L, Dat V, Giang N, Gibson J and Wells-Dang A. 2012. *Vietnam poverty assessment – Well Begun, Not Yet Done: Vietnam's Remarkable Progress on Poverty Reduction and the Emerging Challenges*. Hanoi: The World Bank.
- [16] Pohl C. 2008. From science to policy through transdisciplinary research. *Environmental science & policy* 11:46-53.
- [17] Lang DJ, Wiek A, Bergmann M, Stauffacher M, Martens P, Moll P, Swilling M, Thomas C. 2012. Transdisciplinary research in sustainability science: practice, principles, and challenges. *Sustainability science* 7:25-43.
- [18] di Castri F, Hadley M. 1986. Enhancing the credibility of ecology: is interdisciplinary research for land use planning useful? *GeoJournal* 13:299-325.
- [19] Pretty JN, Chambers R. (1993). *Towards a learning paradigm: new professionalism and institutions for agriculture*. Discussion Paper-Institute of Development Studies, University of Sussex (United Kingdom).
- [20] Overseas Development Administration (ODA). (1995) Guidance note on how to do stakeholder analysis of aid projects and programmes. Available online at: http://www.sswm.info/sites/default/files/reference_attachments/ODA%201995%20Guidance%20Note%20on%20how%20to%20do%20a%20Stakeholder%20Analysis.pdf
- [21] Reed MS, Graves A, Dandy, N, Posthumus H, Hubacek, K, Morris J, Prell C, Quinn CH, Stringer LC. (2009) Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management* 90:1933-1949.
- [22] Douthwaite B, Hoffecker E. (n.d.) Towards a complexity-aware theory of change for participatory research programs working within agricultural innovation systems. Accepted for publication in *Agricultural Systems*.
- [23] Wettasinha C, Waters-Bayer A, van Veldhuizen L, Quiroga G, Swaans K. (2014) CGIAR Research Program on Aquatic Agricultural Systems. Penang, Malaysia. Working Paper: AAS-2014-40.

Annex: Further reading (links provided for all documents available on-line)

Publications on working with ethnic minorities in the Mekong region

- Culas C, Razafindrakoto M, Roubau F. 2015. Ownership and Participatory Processes: From Global motto to Local challenges. The case of a Key Poverty reduction program in ethnic minority areas of Vietnam. *Local politics, global impacts: steps to a multi-disciplinary analysis of scales*. Surrey, UK and Burlington, US: Ashgate.
- Culas C, Schlemmer G, Tran Hong Hanh. 2011. [Construction and management of ethnicities in Southeast Asia: cultures, policies and development](#). In L Stéphane, ed. 2011. Université d'été régionale en sciences sociales: les Journées de Tam Dao Vietnam: ethnic and gender discriminations: methods of measurement and breaking down data. 5:18-23.
- Turner S. ed. 2013. *Red stamps and gold stars: fieldwork dilemmas in upland socialist Asia*. Vancouver and Toronto: UBC Press.
- World Bank. 2009. [Country social analysis: ethnicity and development in Vietnam - summary report](#). Hanoi: World Bank.

Publications on gender-inclusive or gender-transformative research

- Cole SM, Kantor P, Sarapura S, Rajaratnam S. 2014. [Gender-transformative approaches to address inequalities in food, nutrition and economic outcomes in aquatic agricultural systems](#). Penang, Malaysia: CGIAR research program on aquatic agricultural systems. Working paper: AAS-2014-42.
- Jost C, Ferdous N, Spicer TD. 2014. [Gender and inclusion toolbox: participatory research in climate change and agriculture](#). Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), CARE International and the World Agroforestry Centre (ICRAF).
- Meinzen-Dick R, Quisumbing A, Behrman J, Biermayr-Jenzano P, Wilde V, Noordeloos M, Ragasa C, Beintema N. 2011. [Engendering agricultural research, development, and extension](#). Washington, D.C.: International Food Policy Research Institute (IFPRI).

Publications on participatory action research

- Apgar M, Douthwaite B. 2013. [Participatory action research in the CGIAR Research Program on Aquatic Agricultural Systems](#). Penang, Malaysia: CGIAR Research Program on Aquatic Agricultural Systems. Program Brief: AAS-2013-27.
- CGIAR Research Program on Aquatic Agricultural Systems. 2012. [CGIAR Research Program on Aquatic Agricultural Systems roll-out handbook, ver. 1.0, May 2012](#). Penang, Malaysia, AAS-2012-05.
- CGIAR Research Program on Aquatic Agricultural Systems. 2013. [Learning from implementation of community selection in Zambia, Solomon Islands, and Bangladesh AAS hubs](#). Penang, Malaysia: CGIAR Research Program on Aquatic Agricultural Systems. Evaluation and learning series paper: AAS-2013-24.
- Douthwaite B, Apgar JM, Schwarz A, McDougall C, Attwood S, Senaratna Sellamuttu S, Clayton T, eds. 2015. [Research in development: Learning from the CGIAR Research Program on Aquatic Agricultural Systems](#). Penang, Malaysia: CGIAR Research Program on Aquatic Agricultural Systems. Working paper: AAS-2015-16.

Publications on transdisciplinary research

- di Castri F, Hadley M. 1986. Enhancing the credibility of ecology: is interdisciplinary research for land use planning useful? *GeoJournal* 13:299-325.
- Olivier de Sardan JP. 2003. [L'enquête socio-anthropologique de terrain: synthèse méthodologique et recommandations à usage des étudiants](#). (The socio-anthropological field survey: synthesis methodology and recommendations for student use). Laboratoire d'études et recherches sur les dynamiques sociales et le développement local (LASDEL): Niamey, Niger.

Publications on working with indigenous people/ethnic minorities and indigenous/local knowledge

- CARE and Agriculture and Forestry Research & Development Center for Mountainous Region (ADC). 2014. [Guideline: Indigenous knowledge identification and use in community based adaptation practices](#). Thai Nguyen: CARE and ADC.
- Food and Agricultural Organization of the United Nations (FAO). 2015. [Indigenous food systems, agroecology and the voluntary guidelines on tenure](#). A report of the meeting between indigenous peoples and FAO, 2-3 February 2015 at FAO, Rome Headquarters.
- Hansen SA, Van Fleet JW. 2003. [Traditional knowledge and intellectual property: a handbook on issues and options for traditional knowledge holders in protecting their intellectual property and maintaining biological diversity](#). Washington, DC: American Association for the Advancement of Science.
- Indigenous Partnership for Agrobiodiversity and Food Sovereignty. 2011. [Code of ethics](#). Rome: Bioversity International.
- Secretariat of the Convention on Biological Diversity. 2004. [Akwé: Kon. Voluntary guidelines for the conduct of cultural, environmental and social impact assessment regarding developments proposed to take place on, or which are likely to impact on, sacred sites and on lands and waters traditionally occupied or used by indigenous and local communities](#). CBD Guidelines Series. CBD: Montreal, Canada.
- Sillitoe P, Dixon P, Barr J. 2006. *Indigenous Knowledge Inquiries: A Methodologies Manual for Development*. Rugby, UK: ITDG Publishing.
- The World Agroforestry Centre (ICRAF). 2014. *Local Knowledge (including indigenous and traditional knowledge)*. ICRAF Policy Guidelines Series. Nairobi: ICRAF.

