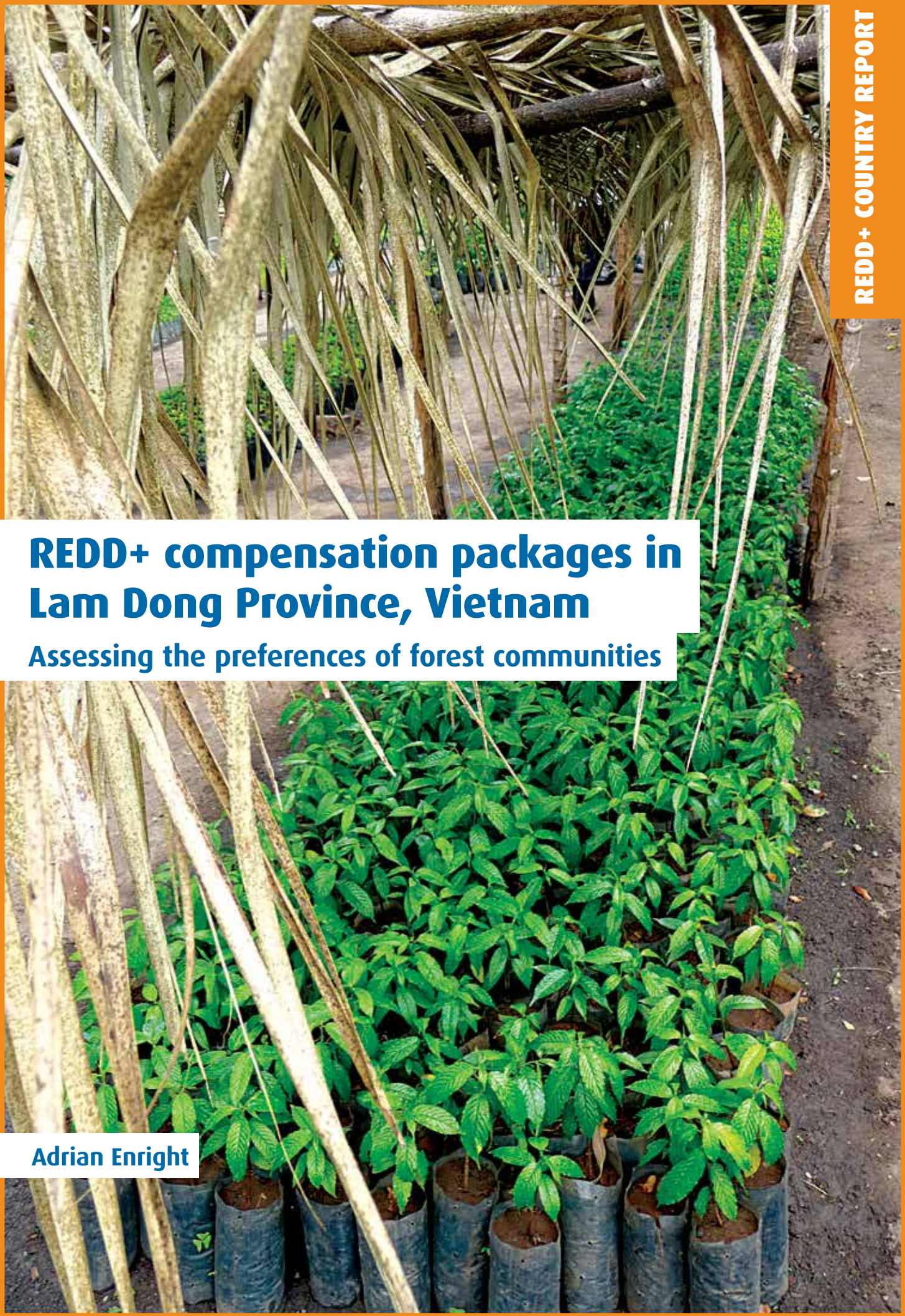
REDD+ COUNTRY REPORT



REDD+ compensation packages in Lam Dong Province, Vietnam

Assessing the preferences of forest communities

Adrian Enright

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For a full list of publications please contact:
International Institute for Environment and Development (IIED)
80-86 Gray's Inn Road, London WC1X 8NH
Tel: +44 (0)20 3463 7399
Fax: +44 (0)20 3514 9055
pubs.iied.org

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Design by: Eileen Higgins, email: eileen@eh-design.co.uk
Copy edited by: Holly Ashley, email: holly@hollyashley.com
Cover photo: IIED/Maryanne Grieg-Gran

Poverty and sustainable development impacts of REDD architecture: options for equity growth and the environment

About this project...

Poverty and sustainable development impacts of REDD architecture is a multi-country project led by the International Institute for Environment and Development (IIED, UK) and the Norwegian University of Life Sciences (Aas, Norway). It started in July 2009 and will continue to December 2013. The project is funded by the Norwegian Agency for Development Cooperation (Norad) as part of the Norwegian Government's Climate and Forest Initiative. The partners in the project are Fundação Amazonas Sustentável (Brazil); Hamilton Resources and Consulting (Ghana); Netherlands Development Organisation (SNV) (Vietnam); Sokoine University of Agriculture, Faculty of Forestry and Nature Conservation (Tanzania); and Makerere University, Faculty of Forestry and Nature Conservation (Uganda).

The project aims to increase understanding of how different options for REDD design and policy at international, national and sub-national level will affect achievement of greenhouse gas emission reduction and co-benefits of sustainable development and poverty reduction. As well as examining the internal distribution and allocation of REDD payments under different design option scenarios at both international and national level, the project will work with selected REDD pilot projects in each of the five countries to generate evidence and improve understanding on the poverty impacts of REDD pilot activities, the relative merits of different types of payment mechanisms and the transaction costs.

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Executive summary

Recent developments in Reducing Emissions from Deforestation and Forest Degradation (REDD+) have seen considerable attention given to what REDD+ can deliver in terms of 'compensation' to local actors. Whilst recognising the ongoing uncertainty around the size and source of such compensation or 'benefits', and also the importance of the possible 'co-benefits' of REDD+, many countries have begun discussions around the distribution methods used for potential cash and non-cash compensation.

This study presents the findings of work conducted by the Netherlands Development Organisation (SNV) in 2011–12. This work used an innovative approach to help inform local-level compensation models for possible future REDD+ activities in Lam Dong Province, Vietnam. In particular, it presents the results of an extensive process of testing participatory approaches for compensation system design options. The participatory approach is designed around the idea that REDD+ actors will be most incentivised to participate in REDD+ if they are given appropriate opportunities to influence the decisions relating to how compensation may flow from REDD+.

The approach was conducted by SNV across two key stages. The first directly engaged communities likely to be involved in REDD+ with the intention of determining the potential format of future compensation systems. This revealed interesting insights around the types of benefits most preferred by different community members. Here, communities revealed a range of compensations that went beyond cash payments and also included agricultural support services, small-scale infrastructure and vocational training.

This stage also revealed important insights as to the types of activities local actors would be willing to conduct in order to receive REDD+ compensation. These activities ranged from increased forest patrol efforts to reforestation programmes and more controlled levels of non-timber forest product (NTFP) harvesting.

The second key stage of this exercise involved designing a suite of potential REDD+ compensation 'packages' based on the information ascertained in the initial stage, and allowing people to nominate their preferred package. This was conducted in a unique format – a group-based choice experiment adapted to fit the local context. This format allowed different preferences to be observed according to differences in the socio-economic demographics of the groups (e.g. ethnicity, land tenure and gender).

This exercise revealed fascinating insights into local preferences. Choices differed considerably depending on factors such as ethnicity and gender. For example, the exercise revealed a clear preference amongst one Kinh group for loans to be provided as a form of REDD+ benefit. However, in other groups, the provision of loans was considered unfavourably because of people's unfamiliarity with using loans effectively and concerns about repayments. Instead, other forms of non-cash benefits, particularly agricultural support services, were revealed as more preferable.

Furthermore, important differences in the preferences around the types and timing of benefits were noticed amongst different genders. These results were consistent with other studies conducted in Vietnam of a similar nature (see Sikor *et al.* 2012 and Eastman *et al.* 2013). Such findings add weight to the idea that local benefit-sharing systems should be tailored to the needs of local actors.

Finally, this report lays out a series of recommendations for future local-level compensation design options, including options for replicating similar participatory approaches at a larger scale. These recommendations build on existing bodies of thought around benefit distribution systems (BDS) in Vietnam (see MARD *et al.* 2010; Sikor *et al.* 2012; Pham Minh *et al.* 2012). It is hoped that this report, in addition to those before it, provides important experiences from which future developments under REDD+, namely the development of provincial REDD+ actions plans (PRAPs), can learn.

Introduction

Vietnam has a recent history of delivering benefits from government to actors involved in forestry-related activities. This includes almost a decade of payments under the Five Million Hectare Reforestation Programme (Decision 661) beginning in 1998, which made payments for reforestation efforts as part of a larger goal to establish five million hectares of new forest. Other initiatives include forest protection contracts, and the implementation of a national payment for forest ecosystem services (PFES) pilot scheme in 2008. Compensatory systems for such policies have tended to be designed in a top-down manner in which households and community groups receive cash transfers from government or industry.

The recent introduction of Reducing Emissions from Deforestation and Forest Degradation (REDD+) in Vietnam, however has brought to the table new discussions around benefit sharing for the five related activities under REDD+.[1] Discussions in Vietnam have widened to include consideration of non-cash benefits and other key questions around the timing, size, fund management and delivery mechanisms of benefits (UN REDD 2010). Included in these discussions are considerations of how participatory approaches can be used to tailor benefit distribution systems (BDS) to the desires of recipients, as opposed to the more conventional top-down approach (Sikor *et al.* 2012). Such systems have been successfully trialled for ecosystem services payments in countries including Brazil under the Bolsa Floresta programme (Mohammed 2011). However, in Vietnam, this approach is less conventional and untested at a large scale.

Participatory approaches are widely recognised as an effective means of designing efficient and socially acceptable environmental programmes and policy (Mohammed 2013). Participatory approaches can take many forms, but are underpinned by the idea that informed assessments of key stakeholders are pivotal to better-targeted and more cost-effective activities.

For REDD+, understanding the context in which local actors use forest resources for cultural, livelihood and other purposes will be vital to ensuring REDD+ activities are successful and sustained in the long run. In particular, participatory approaches in the context of REDD+ benefit sharing allows for an informed assessment of the preferences of local REDD+ actors. This is important in terms of helping to incentivise local actors through more targeted benefits and streamlined systems of delivery (Sikor *et al.* 2012). In contrast, ignoring local preferences could risk poorly targeted and timed benefit delivery, which can therefore jeopardise the long-term involvement of local actors.

It is worth noting that the 'benefits' flowing from REDD+ may go beyond those that directly relate to compensation for REDD+ activities. In particular, REDD+ is often heralded as potentially delivering 'co-benefits' in the form of biodiversity, ecosystem services and social improvements (e.g. greater community engagement in forest management). The focus of this report, however, will be on benefits derived in the form of performance-based compensation for REDD+ activities.

1. Five REDD+ activities include: reducing deforestation, reducing forest degradation, the enhancement of carbon stocks, the conservation of carbon stocks, and the sustainable management of forests.

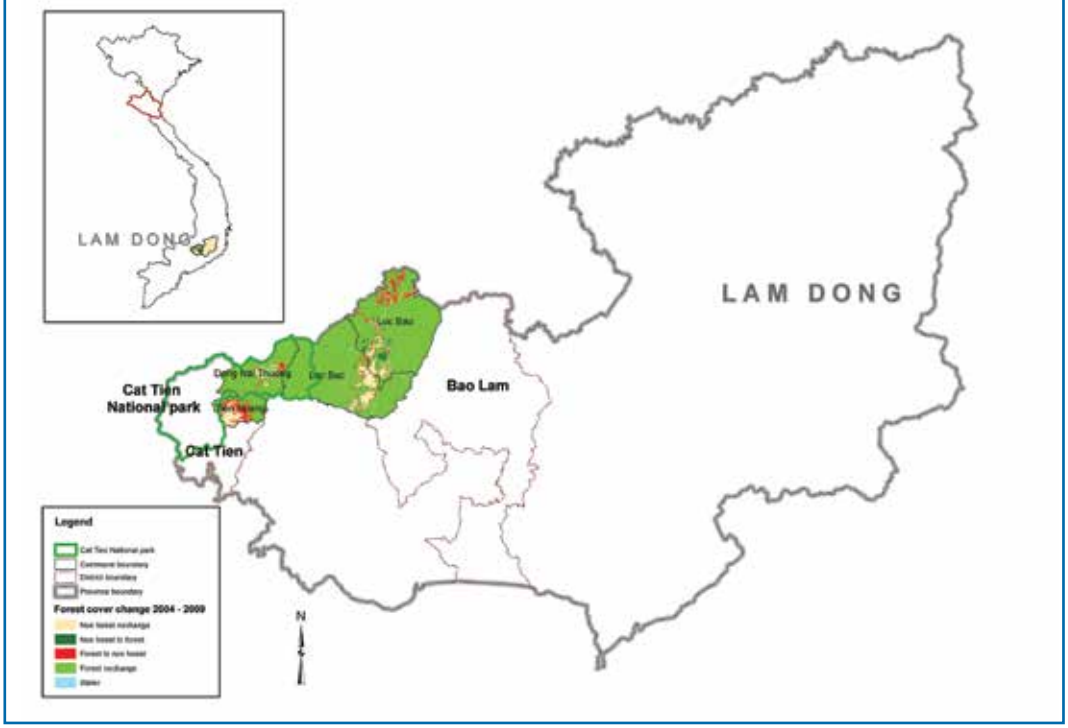
1.1 Intention

As part of the Norad-financed project *Poverty and sustainable development impacts of REDD+*, the Netherlands Development Organisation (SNV) undertook a series of field-level experiments, to test participatory-based approaches for choosing benefits and benefit-sharing formats. The work was conducted between October and November 2012 across four villages within Loc Bac Commune, Bao Lam District, in the central highlands province of Lam Dong (see Map 1).

This report will present the methodology and results from the activities conducted in these areas. Results will be analysed in terms of the differences across social groups such as ethnicity, gender and land entitlement in an effort to illustrate the complexities involved in determining the most appropriate benefit-distribution formats at the local level. This is fundamental to ensuring the most appropriate system is designed to help incentivise future compliance under REDD+ at the local level.

The report will also review the experiences from these activities to determine what they may imply for the implementation of local-level incentive models for REDD+ in Vietnam. This section will make recommendations on the basis of SNV's experiences both with this exercise and with other similar work conducted in Vietnam.

Map of Loc Bac Commune, Lam Dong Province



Methodology

2.1 Study sites

Loc Bac Commune was selected to conduct the field surveys on the basis of SNV's work alongside the Government of Vietnam to implement REDD+ activities in this area. Loc Bac Commune (Bao Lam District) is situated in the central highlands province of Lam Dong (see Map 1).

Loc Bac is a mountainous commune divided into four villages and 11 hamlets, with ethnic minority representation of almost 90 per cent. Within the commune, there are 852 households/4200 inhabitants, of which the Ma ethnic group comprises 662 households/3344 inhabitants; the Kinh ethnic group 155 households/703 inhabitants; and the Tay, Nung and Muong ethnic groups comprise 35 households/152 inhabitants.[3]

The total natural land area of Loc Bac Commune in 2010 was 26,510ha, including:

- agricultural land: 25,943.49ha (97.86 per cent)
- non-agricultural land: 466.55ha (1.76 per cent)
- unused land: 99.81ha (0.38 per cent)

Agricultural crops are dominated by low-yield tea and coffee plantations. Currently, the average tea yield is between five and eight tonnes/ha whilst coffee stands at approximately two tonnes/ha on average. Key constraints to productivity include outdated cropping techniques, declining soil quality and limited land availability. Other emerging crops include macadamia nuts and cacao. Livestock production is also constrained by poor animal husbandry techniques, with only a small number of households raising livestock for breeding purposes.

During the past five years, a large proportion of forest land has been allocated to households. Forest production including afforestation, deforestation and timber processing are managed by the Loc Bac Forestry Company. Contracted forest areas reached 9960ha/542 households, of which there are 356 poor households.

Most of the forest area in the commune is under the management of the Loc Bac Forestry Company. The company is also responsible for contracting local households for forest protection, and acts as the intermediate for payments for ecosystem services and other forestry-related benefits. Forest land is allocated to households as Red Books[2], which restrict forest access and exploitation, or in the form of long-term protection contracts. These agreements, and other forestry-related payments, are prioritised to ethnic minority groups. As such, Kinh people do not receive such allocations in this area.

2.2 The approach: a group-based method to assess preferences

SNV conducted the study in two stages and was guided by methodologies developed by the International Institute for Environment and Development (IIED) and the Norwegian University of Life Sciences (UMB). The initial stage comprised a series of focus group discussions (FGDs) aimed at exploring preferences for BDS formats. The second stage consisted of a series of group-based

2. Red Books are a type of land-use tenure in Vietnam, typically granting people 50-year use-rights to an area of agricultural or forestry land.
3. The Ma are an ethnic minority group, whilst Kinh people form the majority of the Vietnamese population.

choice experiments (see Box 1) developed to assess the preferences of potential future REDD+ actors. An additional exercise was also conducted between the stages: key informant interviews (KII) were conducted with local resource people to obtain a more complete picture of some of the possible costs and benefits of the mitigation activities identified by local actors in stage 1 (see section below).

The timing of the stages was staggered to ensure the appropriate design of the activities. The second stage was conducted four weeks after the first. This was to allow time for a review of the initial stage and design of the later stage. Attempts were made to use the same participants across both of the stages. This allowed those who were involved in the benefit-format selections in stage 1 to be involved in the actual selection of benefit packages in stage 2. This occurred for all but eight individual participants who were involved in the second stage but not the first.

Prior to commencing stage 1, a series of consultations were conducted with relevant officials from provincial, district, commune and village levels. This was done to seek the consent of the authorities to undertake the exercises, and also to best plan the activities in accordance with the schedules of the local people. Assistance from local authorities was also vital for the determination of the different socio-economic groups that would participate in the focus group discussions and benefit selection exercises.

Activities were undertaken in the late afternoon and early evening. This was considered the most optimal time, and least likely to interfere with people's daily economic activities, i.e. tending to the coffee and tea plantations. Each focus group discussion in stages 1 and 2 was kept to a maximum of two hours to avoid participant fatigue and reduce the disturbance to people's daily routines. Each group discussion was held separately from the others. They were conducted in a community house where possible, or in the home of the village leader.

To compensate people for their time, a small participation payment of 50,000 Vietnamese Dong (roughly US$2.50) and refreshments were provided to each participant. This is consistent with recommendations from similar activities carried out by SNV for the UN-REDD Programme in Vietnam (see Box 2 on page 10 from Sikor *et al.* 2012).

Stage 1 also included a brief introduction to the concept of REDD+ and benefit sharing. This drew on existing communications materials that had already been translated into Vietnamese by the UN-REDD Programme (all participants spoke Vietnamese) and a small number of posters designed for the project. An experienced facilitation team from the Institute of Policy and Strategy for Agriculture and Rural Development (IPSARD) was hired to carry out the field-based activities and to assist with the liaison between different stakeholders.

There were 112 and 54 participants in the first and second stages, respectively (see Annexes 1 and 2). Participants were selected by the village heads on the basis of obtaining a mix of socio-economic demographics. This accounted for about six and three per cent of the total labour force of the commune, respectively. Checking this against the Cochran (1977) formula, this sample size was considered statistically sufficient in terms of its representation of the commune's population.

Brief details of the two stages are detailed in Box 1, and summarised in Table 1 (see page 9).

2.2.1 Stage 1: Using focus group discussions to explore benefit formats

The main purpose of the stage 1 focus group discussions was to seek input from communities themselves around some of the key questions surrounding the format of a BDS for REDD+. These key questions are summarised below and have been adapted from the methodology provided to SNV by project partners at UMB.

Box 1. Group-based choice experiments

To explore the local people's preferences of potential packages of REDD+ benefits, a choice experiment methodology was adapted to fit the local context. Choice experiments are typically used when determining individual preferences for a given set or package of goods or services. Choice experiments can be an effective means of observing how personal characteristics influence choices around given alternatives. In this case, the alternatives represented packages of potential REDD+ benefits.

This exercise adapted the choice experiment methodology and added a group decision-making process. Here, preferences were revealed by allowing individuals within the group to discuss the alternative packages on offer, before revealing their individual preferences by raising their hands to vote (see further discussions in the 'Results' section).

This group-based approach was considered to be more appropriate in the context of local decision making. In particular, consultations with local authorities revealed that village-level decisions were typically made on the basis of group-based decisions rather than discrete, individually revealed preferences (e.g. through voting).

- **What activities will be compensated?** In certain areas, the compensation might mainly relate to loss of access to forest land, whereas in other areas, specific land-use changes may be planned to reduce carbon emission levels. The first question, then, should explore people's view on the practices which they will be compensated for.

- **How will compensation be provided?** The 'how' question relates to the format of compensation and will form the main part of the FGD. At the risk of oversimplifying, it could be argued that there are two central questions – whether compensation should be in cash or in kind, and whether recipients should be communities or households. If cash is preferred, how should compensation be offered? To the group as a whole, or to individuals? And if offered to communities, who should decide on the distribution? If it is offered to individuals, should the level of compensation reflect somehow the effort of individuals within the project? Or should the level be the same for all? How often should compensation be given? If it is in kind, what sort of in-kind compensation activities would people prefer?

- **Mechanisms of distribution:** Who should distribute compensation, and how? Should the state be responsible for service provision (in the case of in-kind services) or NGOs or other intermediaries? Should cash be provided through money transfers or hand-outs? This should be an open-ended question, where participants in the FGDs give their reasons for their suggested mechanism of distribution.

- **Temporality:** This section of the FGD should concentrate on eliciting responses around how often the benefits should be distributed.

- **Fairness:** An important question relates to whether communities think that compensation should be differentiated according to efforts or some other criteria, e.g. burden of loss. People will incur different opportunity costs depending on the extent of their forest use or change in land-use practices (Mohammed 2011). There might also be differential benefits foregone and added burdens to certain individuals and groups.

Group selection

Groups to participate in the FGDs were selected in consultation with village leaders. To explore the choices of a range of different constituents, it was decided to select groups on the basis of a number of different socio-economic criteria: gender, land tenure, ethnicity and previous experience with forestry-based payments. Wealth status was also considered, but was deemed inappropriate given the relatively poor economic status of the vast majority of the population (see Nguyen and Enright 2012).

2.2.2 Stage 2: Group-based choice experiment for participation in BDS formats

Stage 2 of the participatory approach combined the information obtained in stage 1 with the KII information to design a set of different benefit packages. These packages are outlined in Table 5 and illustrate five different options (including the 'status quo') for different types and timings of benefits, different activities associated with their reward, alternative distribution methods and contract lengths.

Five groups were chosen to conduct the exercises with, chosen using the same criteria as detailed in stage 1. Following a brief introduction to the exercise and to revisit the concepts of REDD+ and the BDS, respondents were asked to choose their most preferred alternative from the set of alternatives provided.

The exercises were conducted using a focus group format. Groups were presented with the suite of different packages, and then were asked to make individual selections as to which they would prefer. This process was conducted twice. The first acted as a trial run, to ensure that people understood the process. The second-round results were then recorded.

It was initially suggested that secret ballots be used for the selection of different benefit packages. Secret ballots can be an effective means of avoiding potential bias including interviewer bias and peer pressure. However, for exercises conducted in this region of Vietnam, it was concluded that it was more appropriate to allow the groups to discuss the different options and then select their preferred choice on an individual basis in front of the group. The field-team made this decision following consultation with local authorities, which revealed that voting using a secret ballot would not be familiar to participants. Instead, village-level meetings were used to reach decisions by allowing active discussion to take place amongst villagers, following which a public vote would be made. A similar approach was taken for this exercise so as to mimic a typical format for decision making in the given communities.

This methodology, however, does have its trade-offs. A secret ballot would have allowed the field team to more easily identify relevant characteristics (e.g. gender, age or ethnicity) of each individual voter by, for example, placing their name and other characteristics on the voting card before submitting it. This would have allowed for the analysis to make stronger links between certain socio-economic characteristics and patterns in people's choices. However, because this exercise was conducted for the purpose of trying to help inform future local-level BDS design, it was determined more important to try and replicate the type of decision making that might actually occur under REDD+.

Once each individual had voted on which package they preferred (by raising their hand), responses were then recorded on large sheets of paper and reported back to the group. Results were then aggregated for each group. The feedback to the group was important to generate follow-up discussion around why people had chosen certain packages over the others. The results were also communicated back to the local authorities to illustrate what had taken place, and to discuss further some of the possible motivations behind the decisions made.

Table 1. Overview of the methodologies of stages 1 and 2

	Technique	Key questions	No. of participants/groups
Stage 1. Focus group discussions (FGDs) for payment formats	■ FGDs seek input from communities themselves, rather than offering a prescribed survey or set of categories. ■ Each FGD posed a series of set questions, which were then discussed by the group and collective decisions made in terms of the responses given. Each response was recorded and reasons sought for each of the responses. ■ The responses from the FGDs were then used to inform the design of the low-cost benefit selection exercises in stage 2.	What will be compensated? How will compensation be provided? How will benefits be distributed? How frequent will distribution be? Perceptions of fairness. Should benefits be individual or communal?	Eight groups, with a total of 105 participants (see Annex 2) ■ Female group ■ Male group ■ Mixed group ■ Group with main income from crop production or livestock ■ Group without forest land tenure ■ Mixed group ■ Kinh ethnic group ■ Group with forest land tenure (Red Book)
Key informant interviews (KII)	■ KII were used as an intermediate step between stages 1 and 2 to help inform the costs of mitigation activities. This information will then be used to help design the appropriate size of the benefit packages in stage 2.	What are the household-level costs of key inputs into agricultural activities? What are the farm-gate prices received? What is the size of typical household yields? What proportion of land is under harvest presently? What do future land-use planning systems suggest for areas of forest and agriculture?	KII were conducted with the following individuals: 1. Forest protection officer 2. Village head in Loc Bac 3. DARD representative 4. Commune leader 5. District leader
Stage 2. Group-based benefit-selection exercises	■ These exercises are survey-based activities aimed at eliciting responses around preferences for a suite of different alternatives. In this exercise, results from stage 1 were used to design a set of five alternative benefit 'packages' which detailed the type, timing and size of each benefit, as well as the type of activities associated with receiving the benefit. ■ FGDs were held with a number of groups, whereby groups were allowed to vote on the package they preferred. Individual decisions were expressed in a group setting, rather than a secret ballot. This was considered by local authorities as more reflective of how decisions are made at the village level.	What preferred package of benefits and activities would individuals prefer under potential future REDD+ activities? What are the reasons for this expressed preference?	Five groups of a maximum of 16 people in each group: ■ Mixed group ■ Kinh ethnic group ■ Female group ■ Red Book (forest land tenure) group ■ Mixed group

Box 2. BDS decision making in other areas of Vietnam

Extract from Sikor *et al.* (2012):
To prepare the development of a REDD+-compliant BDS for Viet Nam, the UN-REDD Program in Viet Nam commissioned SNV to conduct local self-selection pilots in its two pilot districts of Lam Ha and Di Linh in Lam Dong Province between November 2011 and January 2012. The SNV team conducted a total of 15 self-selection activities in seven villages chosen to represent a variety of conditions characteristic of forest communities in Viet Nam.

The pilots employed an innovative methodology specifically developed for the assignment. The 'REDD+ game' provides a simple procedure to communicate key parameters of REDD+ to local people, in particular the conditionality of actual benefits on performance. It is designed to facilitate collective choices of small groups about the kinds of benefits people prefer receiving from REDD+ actions, desirable schedules for the delivery of the benefits and the institutional mechanisms used to disburse benefits, perform monitoring and handle complaints.

The fifteen self-selection pilots demonstrate that local people can make suitable choices about REDD+ benefits by way of the REDD+ game. The results of the pilots reveal certain commonalities in benefit choices, in particular groups' tendency to assign part of the benefits to forest patrols, cash payments to individual households and provision of agricultural inputs. The results also attest to significant variation in the kinds of benefits and disbursement schedules favoured by groups.

3

Results

3.1 Focus group discussions

Following the initial awareness-raising sessions around REDD+ and BDS with the individual groups, discussion was generated around what people considered to be mitigation-based activities that are worthy of compensation under possible future REDD+ activities. Results for this are summarised in Table 2.

Of note, seven out of the eight groups identified land allocations to communities for replanting and management as a key mitigation activity. In general, this view was expressed due to the perceived benefits community-based forest management would have over the current management by state-operated forest companies in the area, both in terms of the ability to properly manage the forest, and the additional livelihood benefits this income would bring to communities. However, due to the very limited area of available land for reforestation activities that were suggested by local authorities, this activity is unlikely to be a realistic option for REDD+ in the local context.

The same proportion also expressed the desire to include reduced forest exploitation (i.e. forest carbon stock enhancement and reduced degradation). Only one group, consisting solely of women, expressed an opposing view, suggesting that the collection of timber and various non-timber forest products (NTFPs) should actually be increased. In this case, there was considered to be no link between current rates of forest use and localised degradation. This finding is consistent with those made by Petheram and Campbell (2008) in their study of local participation in local payment for forest ecosystem services (PFES) systems in the Cat Tien National Park, Lam Dong Province. Here, the collection of NTFPs, including weaving materials and vegetables, was considered by local forest users not to have any impact on the quality of the forest.

Three-quarters of the groups also identified measures to prevent deforestation, including allocating people with forest protection contracts, as key activities that should be compensated for under REDD+. This reflects a preference for community involvement in forest protection activities due to the perceived constraints on the local forest protection department (FPD) to perform this role effectively with limited resources. This is also reflected in the result where five out of the eight groups indicated a need to improve the capacity of the FPD. A small majority of groups also identified awareness-raising efforts for forest protection amongst local people as worthy activities for REDD+ investments.

Interestingly, stopping or restricting shifting cultivation was not considered as a relevant activity for REDD+ compensation by the vast majority of groups. Shifting cultivation was identified in earlier studies (see Nguyen and Enright 2012) as a primary driver of deforestation in Loc Bac and a key activity that could be targeted under REDD+. This result suggests there may be a discrepancy between scientific evidence and community perspectives on the impacts of activities linked to livelihood expansion. Alternatively, the community perspective may suggest a strategic bias in their responses in so far as not wanting to identify shifting cultivation as being linked to deforestation for fear of being restricted in conducting such activities. The exercise may need to be replicated to establish whether such a bias exists.

Table 2. Compensatory mitigation activities

Mitigation activities	Frequency (groups)	Frequency (%)
Stop deforestation	6	75
FPD has to protect and manage the forest and strictly monitor forest exploitation	5	63
Raise the awareness of local people about the importance of forest protection	5	63
Allocate forest land for local people to plant trees	7	88
The central government should impose a strict forest law	1	13
Limit forest exploitation	7	88
Allocate forest land for local people to protect	6	75
Limit transfer of poor forests to land for rubber plantation	3	38
Have a sustainable plan for power plants to avoid mass deforestation	1	13
Stop shifting cultivation	1	13

In terms of the types of compensation and timing, three types of compensation were favoured by seven of the eight groups, as shown in Table 3.

Firstly, the existing size of forest patrol payments of VN$50,000/ha/quarter (roughly US$2.50/ha/quarter) was considered too low to cover patrol expenses. Groups proposed a more reasonable level to either double (four of the seven groups) or quadruple (three of the seven groups) the current rate, which will enable them to patrol twice a month. Respondents also asked for the payments to be made for at least 20 years. Interestingly, the Kinh ethnic group (members of which do not receive any forestry-related payments due to efforts to target payments at lower socio-economic ethnic minority groups) agreed to proposals to increase payments to ensure better forest protection services. This interesting observation suggests a desire for genuine forest conservation efforts. Similar observations were made by Petheram and Campbell (2008) in their study of local participation in payments for forest ecosystem services (PFES) programmes. Here, participants revealed a strong connection with the forests, and expressed a desire to be involved in increased conservation efforts, even if the payment size was small relative to their overall income (ibid).

Secondly, two types of in-kind payments – vocational training and forestry-related inputs (i.e. seedlings, fertilisers) – were also popular. However, people were uncertain as to where vocational training efforts should be targeted. Other preferences included inputs for agricultural production such as seedlings, different animal breeds and especially fertilisers. This demand was driven by a perceived difficulty in obtaining high-quality agricultural inputs for coffee and tea plantations. Previous experience in working with people in these communities suggests this is more likely to be an ongoing concern rather than influenced by any particular recent event (e.g. crop failure).

With regard to infrastructure, one group highlighted a desire for a new small-scale kindergarten, given that the closest school is located at a considerable distance from the village. Upgraded roads and health facilities were also cited.

A large majority of groups also indicated a preference for loans to invest in forest protection. The rates suggested were around VN$30 million (US$1430[4]) with interest repayments of 3–4 per cent per year (the current interest rates on loans for poor households by the Vietnam Bank of Social Policies) for a minimum of five years. Some Kinh people requested larger loans of VN$50 million (US$2375). This difference between the ethnic groups is likely to be explained by the larger average plantation area of most Kinh people.

4. Using US$1 = VN$21,000 (June 2013).

Fifty per cent of groups also viewed land allocations as being a potential type of benefit. It was observed that many of the suggestions for land allocations were made by younger participants who had recently moved from their parents' home and were looking for productive land to harvest. Furthermore, participants revealed that land allocations of a maximum of 2ha would be manageable given the human and capital constraints of most families. Again, however, local land-use planning does not suggest any additional land will be made available for communities in the near future, so this is not a realistic benefit from REDD+ activities.

Among the eight groups, it was observed that those groups which consisted only or mostly of men came up with fewer ideas than those containing a majority of women. Women tended to express a wider range of potential benefits and were generally more supportive of benefits pertaining to individuals as opposed to community benefits (such as infrastructure). It is difficult to determine what may have influenced this effect, and replication across a wider set of participants would be needed to see if this trend continued.

Comparisons with the preferences for PFES benefits from Petheram and Campbell (2008) indicated that benefits that directly related to job creation were not common in the case of REDD+. Job creation appeared to be a major concern in the two villages studied in the Cat Tien National Park, with some respondents suggesting that better access to employment opportunities through activities in factories would reduce people's dependence on forest materials, thus reducing deforestation and degradation (ibid). Preferences for direct-employment benefits were not revealed in the stage 1 activities, although it could be argued that benefits such as land allocations for reforestation would have indirect employment impacts.

Regarding the issue of implementing agencies, informants did not express any preferences for which agency should be responsible for the distribution of benefits. However, they insisted on using governmental agencies, state-owned enterprises or banks to handle adequate and punctual payments.

Table 3. Compensation types

	Frequency (groups)	Frequency (%)
Forest land for planting trees	4	50%
Supply plants and fertilisers	7	88%
Transfer planting techniques	2	25%
Provide loans for forest plantation	6	75%
Pay reasonable amount of forest protection payments	7	88%
Supply new animal breeds	5	63%
Vocational training	7	88%
Infrastructure	6	75%
Agricultural production land	1	13%
Tools and equipment for forest patrols	1	13%

For the purpose of informing the stage 2 exercises, it was necessary to draw some general conclusions from stage 1. Most of the types of benefits mentioned were those relating to individual uses. Participants (mainly male) only mentioned community benefits in the form of infrastructure.

- Among many compensation types, the increase of forest protection payments (FPP), loans and inputs for coffee cultivation were widely selected. Similar to the Petheram and Campbell (2008) study, cash was not considered as a preferable benefit type unless combined with other in-kind benefits.

- A large number of activities were considered as worthy of compensation under REDD+. The strong desire for direct employment initiatives found in Petheram and Campbell (2008) for PFES were not observed in this exercise.

- A number of different preferences for the length of payment period were expressed, ranging from five years (for agricultural support services) to more than twenty years (i.e. for FPP).

- Although land allocations for protection and productive purposes were considered as both a form of benefit and a mitigation activity, land-use planning in Loc Bac suggests no additional land will be allocated in the foreseeable future. This rules out such land allocations for consideration in the BDS in this area, although it should not be disregarded in other local contexts.

- Which authorities should be responsible for the distribution of benefits did not appear to be a major factor of concern for any of the groups involved in the focus group discussions.

3.2 Key informant interviews

Key informant interviews (KII) were conducted to elicit information from key resource people in the local area about some of the costs and benefits of potential mitigation activities under REDD+. The interviews were also completed to understand more about the local land-use context. In this sense, the KIIs complemented the work undertaken in stage 1, and were used to help inform stage 2. The KIIs therefore provided an important intermediary step between the stages that allowed for information from stage 1 to be checked against the views expressed by key local resource people. This was then incorporated into the design of stage 2 activities (the KIIs could just as effectively be seen as part of stage 2). Secondary data was also collected by a group of local consultants, drawing on both national and sub-national datasets from government and NGOs. This information was necessary to fill in many of the gaps left from the KII.

In combination with the information from stage 1, the KII responses and secondary data could be used to assist with the design of the benefit packages. These were introduced in the group-based benefit selection exercises in stage 2. Some of the key findings from this process are listed below:

- The costs of forest enrichment plantings across different forest types was determined to be roughly VN$300,000/ha/year after the initial set-up costs (see Table 4). This was used as a proxy measure for the costs associated with forest patrol efforts, for which people are currently compensated for at a rate of VN$50,000/ha/year. As such, a rate of VN$200,000/ha/year, which was suggested by many respondents in stage 1, could be seen as reasonable and within the range of the actual costs measured through the KII.

- Coffee and tea are the most commonly grown crops in the area. Newly introduced species including macadamia and cacao are also grown, but on a much smaller scale.

- Coffee and tea yields in Loc Bac are lower than those in other regions and are largely constrained by poor cropping techniques. The KII suggested that coffee yields averaged around 2 tonnes/hectare and tea somewhere within the range of 5–8 tonnes/hectare.

- Informants were not quite sure about the detailed components of production costs, but they all agreed that fertiliser accounted for the largest proportion, around 80 per cent.

- In the next five years, according to land-use planning, no households will be allocated agricultural production land.

- Agricultural extension services have been provided in the past, but their effectiveness has been limited by the lack of follow-up practices from those receiving the training. It was stressed in the KII that any plans for extension services as a potential benefit must be implemented with longer-term follow-up and appraisals.

- Consistent with responses from villagers in stage 1, the KII participants insisted on the use of governmental agencies, state-owned enterprises or banks to handle adequate and on-time payments.

Table 4. Cost for forest enrichment plantings (VN$/ha/year)

	Protection forest[5] and special-use forest	Production forest
First year	3,500,000	2,000,000
Direct costs	3,320,000	1,820,000
Other indirect costs	180,000	180,000
Second year	1,500,000	300,000
Direct costs	1,446,000	246,000
Other indirect costs	54,000	54,000
Third year	700,000	300,000
Direct costs	646,000	
Other indirect costs	54,000	
Fourth year onward	300,000	300,000
Direct costs	268,000	
Other indirect costs	32,000	

3.3 Using a group-based participatory approach to choose benefits

Results from stage 1 and the KII process were combined to determine a suite of different benefit packages. These are presented as a matrix in Table 5. The process of determining the five different packages followed the methodology provided by IIED alongside consultations between SNV and the local organisation responsible for carrying out stages 1 and 2.

The total value of each package was equivalent to VN$200,000/ha/year, as per the request of the majority of groups in stage 1 and in line with comparisons made in the KII process (see Table 4). In the case of cash benefits, this was simple to calculate. However, in-kind benefits, such as training and infrastructure, needed to be calculated based on estimates of population sizes and the cost of construction, respectively.

The benefit types were determined by preferences expressed during stage 1, in addition to the activities deemed appropriate for compensation, the length of the contracts and the distributing agency. The frequency of the disbursement needed to be determined based on the size of the benefit and the length of the contract. It should be noted, however, that although chemical fertilisers were preferred over and above organic fertilisers by local people, it was considered counter-intuitive to reward people for their efforts in REDD+ with benefits that could lead to long-term adverse impacts in other areas of the landscape. As such, organic fertilisers were included.

5. Special-use forests (2.1 million ha or 15.7 per cent of total forest area) are forest areas which are established under the Law on Forest Protection and Development. They have special value in terms of nature conservation, as standard specimens of national forest ecosystems and as forest gene sources; for scientific research; for the protection of historical-cultural relics or scenic places; for relaxation and tourism (in combination with conservation); and for contributing to environmental protection (No. 117/2010/ND-CP). Protection forests (4.7 million ha or 36.1 per cent of total forest area) are fully protected forest areas (No 61/2005/QĐ-BNN).

Table 5. List of alternative benefit packages used, stage 2

Attributes	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Status-quo/ do nothing
Commitments made by households/ communities	Forest enrichment plantings	Forest enrichment plantings	Reducing exploiting timber and non-timber forest products	Reducing exploiting timber and non-timber forest products	Status quo option
Details	Protecting and enriching the allocated forest (including patrols, fire protection, etc.)	Protecting and enriching the allocated forest (including patrols, fire protection, etc.)	Avoid deforestation by improving tea/ coffee plantation	Avoid deforestation by improving tea/ coffee plantation	No commitment
Payment to community or household	Household	Community and household	Household	Household	No payment
Payment in cash or in kind	Cash	Mix (cash for household and infrastructure for community)	Agriculture extension, commune drying facilities and organic fertilisers	Loans	No payment
Implementation agency	Local government	Local government	Agriculture extension department/local NGO	Bank/BARD	N/A
Frequency of payment	Quarterly	Once for infrastructure and quarterly for cash payment		According to business cycle	No payment
Payment level[6]	200,000đ/ha/ quarter	VN$100,000/ha/ quarter in cash and a kindergarten school or health station (VN$650 million)	Two trainings and commune drying facilities in first year and organic fertiliser from second year	VN$50 million at an interest rate of 4% per year	No payment
Contract length[7]	Over 10 years	Cash: over 10 years; infrastructure: upgrade/refurbish every 5 years	Renew after 5 years	Renew after 5 years	No payment

6. All payment types were equated to VN$200,000/ha/year. Estimates for the cost of infrastructure and other in-kind benefits were sourced from the KII with local stakeholders.
7. Contract lengths were stipulated up to 10 years or at 5-year renewals. Although longer terms were preferred, the contract lengths were kept consistent with local planning timelines (typically 10 years) or indicated in five-year terms with renewals points at the end of each five-year term, to reinforce the idea that payments were contingent on the delivery of services.

Due to time and resource constraints, it was agreed by all partners that a maximum of five focus group discussions would be conducted for stage 2. In a similar process to that described in stage 1, groups were selected based on a range of different social compositions (see Table 6).

Table 6. Stage 2 group characteristics

Group 1	Mixed group; 8 participants of Ma ethnic group, 2 men and 6 women; 5 attended previous FGDs; all receiving PFES and forest protection payments; 4 have forest land tenure.
Group 2	Kinh ethnic group; 16 participants, 1 woman and 15 men; all attended previous FGDs; main income is from coffee; no forestry-related payments.
Group 3	Female group; 13 participants of Ma ethnic group; 9 attended previous FGDs; all receiving PFES and forest protection payments; 3 of the 13 have forest land tenure.
Group 4	Red Book (forest land tenure) group; 8 participants of Ma ethnic group; 5 women and 3 men; all attended previous FGDs; all receiving PFES and forest protection payments.
Group 5	Mixed group; 11 participants, all men; 2 Tay and 9 Ma ethnic groups; all attended previous FGDs; all receiving PFES; 3 have forest land tenure.

3.4 Overall preferences

Figure 1 overleaf illustrates the spread of benefit choices revealed in stage 2. All groups except for group 2 indicated a clear preference for agricultural extension services. The reason for this overwhelming preference was that this benefit type has very direct and immediate links to livelihood improvements. In particular, existing problems with poor yields for coffee and tea production (as a result of deteriorating soil quality and limited access to new techniques and capital) were viewed as an impediment to improved income opportunities. Assistance in the form of organic fertilisers and extension services was seen to directly address this concern.

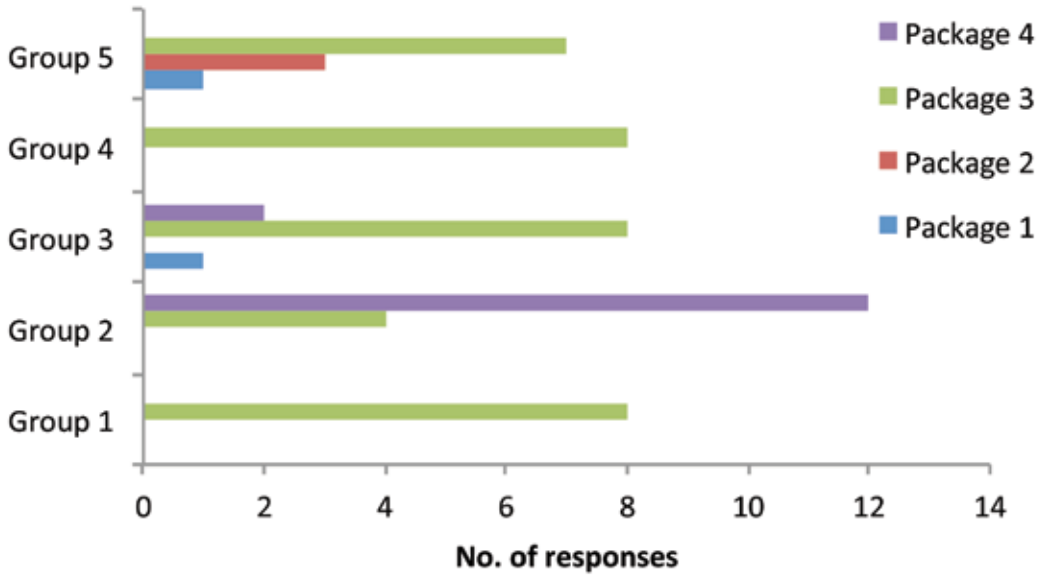
Loans were the second most common preference in terms of individual responses (14 out of 54). This was a surprising result, as loan provisions had not been discussed in other similar work such as Petheram and Campbell (2008). However, the majority of respondents preferring loans came from group 2, which consisted entirely of Kinh participants. Group 2 was also predominantly made up of men. This may suggest a more risk-taking attitude among Kinh men relative to other groups.

Cash did not appear to generate a large interest amongst the participants. Only two out of 56 respondents opted for this benefit type. This could be for several different reasons. Firstly, many people expressed concerns that cash benefits would not be spent in ways that directly promoted a livelihood benefit, but instead would more likely be used to consume 'luxury goods' or non-essentials including alcohol. Similar studies in Lam Dong Province also suggest such reasoning for the low preference for cash benefits under REDD+ and PFES (Sikor *et al.* 2012; Petheram and Campbell 2008).

A second reason for the low preference for cash benefits may be that the activity linked to this benefit was seen as less attractive than the alternatives. This is supported by field observations made by the facilitation team. Respondents chose packages three and four because they preferred to reduce the exploitation of forest products in exchange for direct improvements in cropping techniques, as opposed to being paid for patrolling the forest. This seems consistent with the results achieved in stage 1 (Table 3) where increased cash payments for forest patrols, vocational training, and the supply of seedlings and fertilisers all received equally high response rates. However, when these forms of benefits were bundled with specific activities, benefits attached directly to agriculture were significantly more popular. Further research would need to be undertaken to understand the exact reasons for the low responses to cash.

Only group 5 considered package 2, which included benefits in the form of infrastructure (a new kindergarten). Upon further questioning as to the reasons behind people's decisions, it was made clear that respondents in the group were all from a village where they had to travel long distances to access the closest kindergarten. In this case, there seems to be a direct link between people's choices and the benefit type, rather than other characteristics of the package. Furthermore, group 5 was the only group to have full male representation. In this case, the choice of community-orientated benefits as opposed to more individualistic benefits from men was also consistent with the observations made in stage 1.

Figure 1. Overall preferences by group



3.4.1 Preferences by social delineation

As mentioned earlier, some key differences were revealed across genders. Figure 2 clearly illustrates a higher preference for package 4 amongst male participants. This suggests a much higher willingness among men to take on loans than perhaps more risk-averse women. However, this may also be linked to ethnicity (Figure 3). Observations from the field suggested that most ethnic minority participants were unfamiliar with the concept of the loan package, and were therefore less in favour of taking on this risk than Kinh people.

Figure 3 also indicates that packages 1 and 2 were not favoured by any of the Kinh participants. The reasons they gave for this included that they currently had no involvement in forest patrol activities, as opposed to other ethnic groups, and therefore this activity would be of no interest to them. However, stage 1 activities did reveal that Kinh participants would not be averse to seeing an increase in PFES payments to ethnic minority groups on the basis of the perceived widespread community benefits this would bring in the form of improved forest quality.

The field team observed that women in stage 1 raised very unique and interesting ideas, but were indecisive in terms of making selections in stage 2. Furthermore, women who participated in mixed groups expressed very limited ideas when compared to the number generated in female-only groups in stage 1. Despite gentle persuasion to participate by the facilitators in stage 2, it proved difficult to create an environment where women spoke out when working alongside the

men. This observation contrasts to other participatory approaches conducted for PFES. In particular, Petheram and Campbell (2008) observed women taking an active role in persuading men that cash benefits were unlikely to provide long-term improvements in household well-being.

Women were also observed to prefer package 3. A common reason given was because of the concern that cash benefits would be spent by male heads of the household on non-essential items.

Figure 2. Preferences by gender

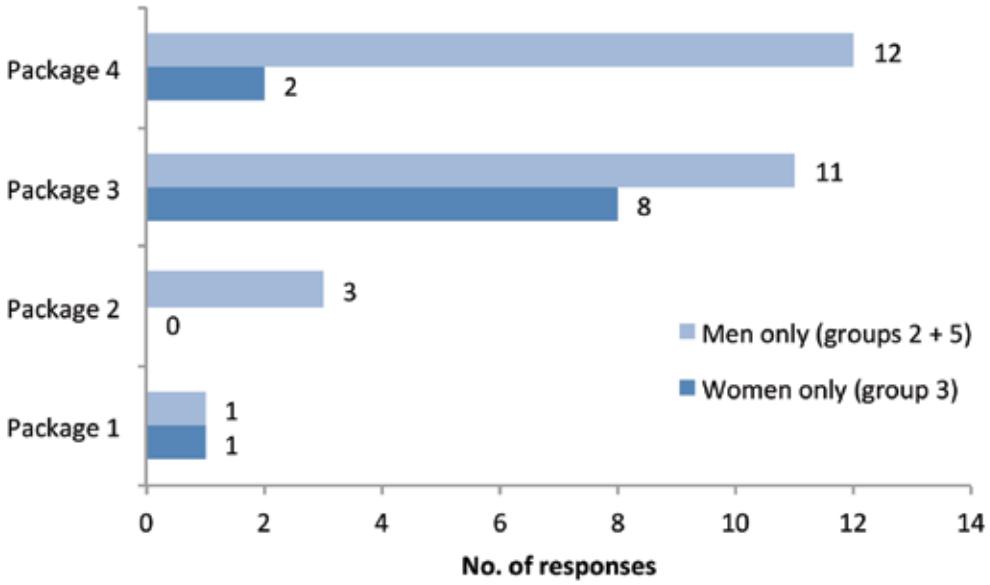
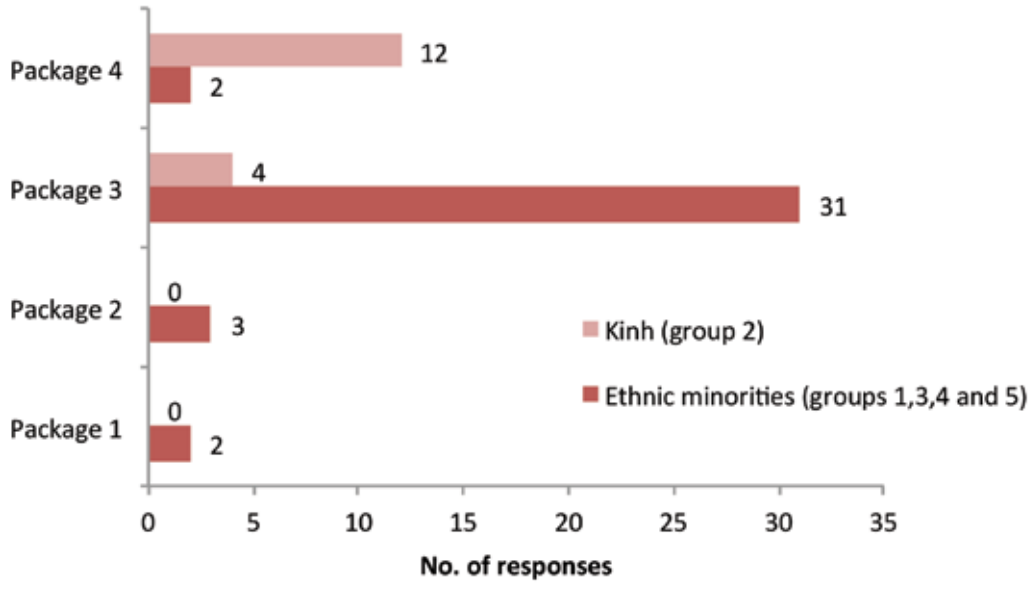


Figure 3. Preferences by ethnicity



3.4.2 Preferences by land tenure

An attempt to observe the differences in preferences across people with different land-tenure arrangements was made, by including one group of people who all had land-tenure certificates in the form of Red Books (group 4). Other groups either had a mix of people with or without Red Books, and group 2 had no Red Book participants given it comprised solely of Kinh people (see Section 2.1). However, the results were largely inconclusive, given the small sample size and inability to determine which of the people holding Red Books in the mixed groups (groups 1, 3 and 5) made choices either way. From Figure 1, we note that groups 1 and 4 revealed the same preferences, in so far as only choosing package 3. Given that half of group 1 and all of group 4 participants held land-tenure certificates, a clear preference was evident for the package that offered agricultural support services in exchange for reducing pressures from encroaching agriculture. However, it is difficult to draw any tangible conclusions from this result and link it to land tenure.

3.5 Timings and distributing agency

The timing of the individual packages seemed to be of little concern, in terms of people's preferences for the different packages. Packages were tailored to align the timing with the appropriate size of the benefit (i.e. five and 10 years is the minimum period for crop production and forest enrichment respectively) and this appeared to be considered appropriate by all the respondents.

Participants did not pay close attention to which implementation agency would distribute payments, and this was consistent with the observations made in stage 1. This is likely to be because all current economic benefit-sharing programmes related to livelihoods and social development are implemented by local government.

Conclusions and recommendations for implementing REDD+ in Vietnam

The two-stage exercises conducted by SNV and its partners add to the weight of evidence of other compensation-related studies in Vietnam around the importance of local-level engagement in the selection of REDD+ benefits. Although the sample size of this body of work is small, the results echo some of the key messages in other larger studies in Vietnam, around future compensation-package design at the local level (see Sikor *et al.* 2012; Enright *et al.* 2012; Eastman *et al.* 2013).

There are some key conclusions that can be drawn from this work, and comparisons are drawn with similar studies. Recommendations are made with the intention of helping to inform the design of local-level compensation formats for the national REDD+ programme in Vietnam and to promote the use of self-selection activities in further REDD+ pilots.

4.1 Importance of local-level participation in compensation package design

Local participation can reveal information important to local-level compensation package design. One of the underlying objectives of this work was to test the effectiveness of local participation in designing compensation packages. Overall, the high level of participation amongst groups suggests that people understood the purpose of the exercises and made informed decisions using the information given to them. The range of well-considered benefits, activities and packages of benefits also suggested people had paid close attention to what REDD+ might mean for them, and what they would want in exchange for their involvement.

However, several adjustments needed to be made to ensure that both stages 1 and 2 fitted the local context. Initially, choice experiments aimed to elicit community responses around benefit sharing. But due to time and resource constraints, a simplified, low-cost approach was conducted which allowed active participation in the benefit-sharing decisions in a simplified format, using open forum focus group discussions. Women-only groups are considered necessary to promote an environment where women feel comfortable in raising their voices in decision-making processes. Furthermore, more time was needed for groups (typically of ethnic minority) who had a lower level of education and therefore needed more time to grasp the concept of the exercise. Timing and group size also needed to be considered closely, working alongside local leaders to ensure maximum participation and minimal disturbance to people's daily routines.

Recommendation 1

This group-based approach has the potential to yield important insights for the design of local-level compensation packages for REDD+. Several key considerations should be factored into the design:

- Participatory approaches should not be conducted for longer than two hours and need to be timed to minimise the disturbance to people's daily routines.
- Groups of no more than 12 participants are most suitable to ensure maximum participation.
- Gender segregation can be an effective way to increase the participation of women.
- Voting styles should be adjusted to what is most familiar to local people.
- Appropriate compensation should be provided to account for people's time spent doing the exercises.
- A broad range of representative groups should be selected in advance, working with local authorities.

4.2 REDD+ benefits options: agricultural support and non-cash forms

Options for REDD+ benefits should include agricultural support services and other non-cash forms. The results presented in this report indicate the wide range of potential forms a benefit may take. Table 3 illustrates up to 10 different benefits, which respondents indicated would be desirable incentives to undertake REDD+ activities. This is consistent with similar exercises in Lam Dong and Bac Kan provinces, where cash was only one benefit type preferred by the groups participating (Sikor *et al.* 2012 and Eastman *et al.* 2013).

This finding, although perhaps obvious, is important in the context of Vietnam. Cash has generally been the means of rewarding local actors for efforts in forestry-related activities, which led to a focus on cash as a future positive incentive under REDD+ (see Introduction). This work also illustrates some key concerns from local constituents themselves about the possibility of receiving cash. In particular, women were found to have concerns that cash benefits would be directed down to the head of the family (typically a man) and consumed in ways that were not beneficial to the wider family group. A larger set of respondents were more interested in receiving alternative benefits, such as agricultural extension services, other inputs (e.g. organic fertilisers) or alternative forms of cash such as loans.

In the context of the national REDD+ programme, this has important implications for incentivising REDD+ and ensuring the long-term involvement of actors in REDD+. Better-targeted benefits will be more attractive to local actors, who will therefore have more of an incentive to maintain REDD+ activities than if benefits were not tailored to their needs (Enright *et al.* 2012).

Recommendation 2

Local compensation package design needs to ensure proper consultation around the types of benefits actors would prefer. Tailoring the benefits to what people want will better incentivise people to be involved in REDD+.

4.3 Gender is a key issue for appropriate local engagement

The results from this work suggest some key implications for the role of gender in decision making for local compensation packages. In particular, Figure 2 indicates that there were significant differences in the decisions men and women made relating to different benefit packages. This suggests there is a clear need to properly consult both men and women in the decision-making process. This is especially important in areas where REDD+ activities may place additional workloads both directly and indirectly on men and women. For example, where additional forest patrols are needed to protect against illegal deforestation, this may require additional time in patrols by male representatives. But this could also have an indirect impact on women, who may need to spend additional time tending to crops or taking care of the family. In this case, it is fundamental to tailor the benefits for REDD+ around the preferences of both men and women, as they are both affected by the implementation of REDD+.

In consulting different groups, it is also necessary to consider the environment that is most comfortable for different genders to participate in. This was evident in the field observations around the level of participation amongst women when they participated in mixed groups, versus when they were involved in focus group discussions with no male representation. It was obvious that the latter format was much more conducive to women voicing their opinion, whereas in mixed groups, females tended to remain quiet and agreeable with the general consensus of men participating in the group.

Recommendation 3

Decisions around benefit formats need to appropriately include both male and female representation. For group decision making, it is important to create a setting where people feel comfortable to voice their opinions. This may require segregation by gender to promote the involvement of women.

4.4 Differing benefits packages for different ethnic groups

Packages of benefits should differ amongst different ethnic groups. As well as differences between genders, this study illustrated that there are important differences in preferences between Kinh and ethnic minority groups when it comes to the types, timing and format of benefits for REDD+.

The importance of consultations with local actors can be highlighted through the results illustrated in Figure 3, where there was a clear preference amongst one Kinh group for loans to be provided as a form of REDD+ benefit. However, in other groups, the provision of loans was considered unfavourably because of people's unfamiliarity with using loans effectively and concerns about repayments. These fundamental differences – found within the same commune – suggest that there is a risk that benefits may be poorly targeted if these differences are not explored in the initial design phase for local-level compensation packages.

Similarly, results from this exercise suggest the types of REDD+ activities can also be specific to ethnicity, and this can influence the shape of the benefit packages. For example, in the selection between the packages in stage 2, options that involved forest patrols were not of interest to Kinh people, as they have no existing rights or responsibilities to undertake such patrols. This was not revealed by local authorities during the preparation of stage 2 activities, and therefore was essential information that was only gained through proper local engagement.

Recommendation 4

Choices around benefit types, timing and formats will need to consider the different preferences across ethnic groups. This needs to be facilitated by local engagement which appropriately identifies the key local differences.

4.5 Considering land tenure when shaping compensation packages

Land tenure requires close consideration in shaping compensation packages. Land tenure is often seen as a prerequisite for REDD+ or, if not a prerequisite, as a potential benefit of REDD+ activities. This study attempted to investigate the different choices of benefits amongst different groups with different land-tenure arrangements. Although these results were inconclusive, it does reveal that people's land-tenure situation will likely influence their decisions around the type of activities undertaken under REDD+ and the benefits received.

Other studies conducted in Vietnam using similar participatory approaches to the compensation package design have illustrated the importance of land tenure in making decisions regarding the types of benefits offered under REDD+. For example, Eastman *et al.* (2013) illustrate that cash is an attractive reward for those with an existing land title. This result is considerably different from that found in this study, where only around 1 per cent of people – both with and without land tenure – indicated a preference for cash benefits.

Recommendation 5

Land tenure will help to determine the eligibility of people for REDD+ benefits, can be a precondition for REDD+ involvement, and may even be an appropriate form of benefit. A clear picture of land tenure at the local level (e.g. village level) must be understood before appropriate benefit packages are presented to potential future actors for selection.

4.6 Understanding the value of potential REDD+ benefits

Understanding the value of potential REDD+ benefits will be important in shaping benefit selection. In this exercise, and others conducted in Vietnam, hypothetical values for the bundles of benefits have been derived – here, using a combination of key informant interviews and secondary data. This process was fundamental to ensuring packages of roughly equal size were offered for people to choose from.

In reality, the size of the benefit packages will depend on the measured carbon sequestration (in a full compliance market) or some proxy measure of performance (Enright *et al.* 2012). Suggestions at this point in time indicate that at least in the short- to medium-term, Vietnam will use proxy measures of performance to measure REDD+ activities. In this case, it will be important to determine a realistic size of the future benefit stream as an early step in the local-level BDS design. By doing so, expectations can be controlled around the possible benefits from REDD+ and a realistic set of packages can be presented to local actors.

The importance of this is illustrated in SNV's study, where some respondents expressed a desire for benefits to be delivered in the form of livestock. In particular, it was suggested that two buffalos per household could be provided in exchange for conducting REDD+ activities. Given the high market price of a buffalo, it would be unreasonable to think that benefits derived from REDD+ activities would equate to the said values of livestock. Similar issues were raised for benefits relating to infrastructure construction. It was therefore important for the field team to communicate that this was an unreasonable expectation of REDD+.

Recommendation 6

For REDD+ pilots in Vietnam, the approximate size of future benefits should be appropriately estimated and used to inform the size of benefit packages offered in the self-selection exercises. This will help to control expectations among local actors of what benefits REDD+ can yield.

4.7 Reducing transaction costs: FPIC and other local processes

Transaction costs can be reduced by coupling self-selection activities for REDD+ compensation packages with free, prior informed consent (FPIC) and other local consultative processes. Self-selection processes have been demonstrated to be highly valuable in helping to inform local compensation packages and move away from the top-down processes of benefit delivery associated with other forestry-related benefit-delivery systems in Vietnam (Sikor *et al.* 2012 and Eastman *et al.* 2013). However, with increased consultation come increased costs for REDD+ implementing agencies, including governments, donors, NGOs and private sector organisations.

The transaction costs for similar self-selection exercises have been estimated to roughly equate to US$5/household/year for the first five years (Ogonowski and Enright 2013). These estimates are, however, based on a small number of participants and could be reduced by achieving economies of scale. There is also potential to combine such self-selection activities in similar REDD+ consultative processes such as FPIC activities or awareness-raising exercises. For example, much of what was conducted by SNV in stage 1 of the above analysis could have been tied in to other local-level engagement activities. Stage 2 could also be coupled with follow-up FPIC and consultative phases. This could significantly lower the transaction costs associated with consultative approaches to BDS design.

Recommendation 7

Incorporate stages of the compensation package design with FPIC and other local-level consultative activities to reduce the transaction costs associated with consultative approaches to BDS design.

References

Cochran, W.G. 1977. *Sampling Techniques* (3rd ed.). New York: John Wiley & Sons.

Eastman, D., Catacutan, D.C., Do, T.H., Guarnaschelli, S., Dam, V.B., Bishaw, B. 2013. *Stakeholder Preferences over Rewards for Ecosystem Services: Implications for a REDD+ benefit distribution system in Viet Nam.* Working Paper 171. Bogor, Indonesia: World Agroforestry Centre (ICRAF) Southeast Asia Regional Programme.
See www.worldagroforestry.org/sea/publication?do=view_pub_detail&pub_no=WP0175-13

Enright, A., McNally, R. and Sikor, T. 2012. *An Approach to Designing Pro-Poor Local REDD+ Benefit Distribution Systems: Lessons from Vietnam.*
See www.snvworld.org/en/redd/publications/an-approach-to-designing-pro-poor-local-redd-benefit-distribution-systems-lessons

MARD, UN-REDD and GTZ. 2010. *Design of a REDD-Compliant Benefit Distribution System for Viet Nam.* Vietnamese Ministry of Agriculture and Rural Development (MARD), United Nations REDD Programme and GTZ.
See www.un-redd.org/Newsletter6_Viet_Nam_BDS/tabid/3280/language/en-US/Default.aspx

Mohammed, E.Y. 2013. Assessing the preference of the public for environmental quality improvement schemes using conjoint analysis method: the case of the Ping River, Thailand. *Forum of International Development Studies* 43 (157–173).

Mohammed, E.Y. 2011. *Pro-poor Benefit Distribution in REDD+: Who gets what and why does it matter?* REDD Working Paper, IIED, London. See pubs.iied.org/16508IIED.html.

Nguyen, T. and Enright, A. 2012. *Socio-economic Baseline and Analysis of Drivers of Deforestation: Cat Tien Landscape, Lam Dong Province, Vietnam.* Netherlands Development Organisation (SNV). See www.snvworld.org/en/redd/publications/socio-economic-baseline-and-analysis-of-drivers-of-deforestation-in-cat-tien

Ogonowski, M. and Enright, A. 2013. *Cost Implications for Pro-Poor REDD+ in Lam Dong Province, Vietnam: Opportunity costs and benefit-sharing systems.* IIED, London.

Petheram, L. and Campbell, B.M. 2008. Listening to locals on payments for environmental services. *Journal of Environmental Management* 91:5 (1139–1149).

Pham Minh, T., Phung Van, K., Enright, A., Nguyen Thanh, T., Nguyen Truc, B.S. 2012. *A Pilot of Establishment of R-coefficients for REDD+ Benefit Distribution in Di Linh District, Lam Dong Province, Vietnam: Final report.* UN-REDD Programme, Vietnam.
See www.snvworld.org/files/publications/r-coefficient_final_2833.pdf.

Sikor, T., Enright, A., Nguyen Trung, T., Nguyen Vinh, Q., Vu Van, M. 2012. *Piloting Local Decision Making in the Development of a REDD+ Compliant Benefit Distribution System for Viet Nam.* Report by the Netherlands Development Organisation (SNV) on behalf of the UN-REDD Programme, Vietnam.
See www.snvworld.org/files/publications/bds_piloting_report_final_report_to_unredd_-snv.pdf.

UN REDD. 2010. *Design of a REDD Compliant Benefit Distribution System for Viet Nam.* UN REDD Programme. See http://tinyurl.com/un-redd-compliant-benefit.

Annex 1. List of stage 1 participants for FGDs

	D.O.B	Marital status		Ethnicity			Religion		Education level			Forest exploitation	
		Married	Single	Kinh	Ma	Tay	Yes	No	None	Primary	Other	No	Yes
FGD1													
1	1985	X			X		X			X		X	
2	1986	X			X		X				X		X
3	1969	X			X		X		X			X	
4	1961	X			X		X		X			X	
5	1973	X			X		X		X			X	
6	1981	X			X		X		X			X	
7	1964	X			X		X		X			X	
8	1983	X			X			X		X		X	
9	1977	X			X		X		X				X
10	1981	X			X			X		X			X
11	1984	X			X		X		X				X
12	1986	X			X		X				X		X
FGD2													
1	199?	X			X			X		X		X	
2	1977	X			X		X			X		X	
3	1976	X			X		X			X		X	
4	1984	X			X		X			X		X	
5	1978		X		X		X			X		X	
6	1982	X			X		X		X			X	
7	1986	X			X		X				X	X	
8	1983	X			X		X			X		X	
9	1984	X			X		X			X		X	
10	1964	X			X		X		X			X	
11	1977	X			X			X		X		X	
12	1985	X			X			X		X		X	
13	1982	X			X		X			X		X	
14	1982	X			X		X				X	X	
15	1965	X			X		X			X		X	
FGD3													
1	1977	X			X		X		X			X	
2	199?	X			X		X			X		X	
3	1997	X			X		X				X	X	
4	1992	X			X		X		X			X	
5	1978	X			X		X		X			X	
6	1989	X			X		X		X			X	
7	1968		X		X		X			X		X	
8	1983	X			X		X		X			X	
9	1996	X			X		X			X		X	
10	196?	X				X	X				X	X	
11	199?	X			X		X			X			X
12	1981	X			X		X		X				X
13	1984	X				X		X			X	X	
14	1979	X			X		X		X				X

FGD4												
1	1977	X			X		X			X		X	
2	1986		X		X			X	X				X
3	1978	X			X			X		X			X
4	1968		X		X		X		X				X
5	1952	X			X			X			X	X	
6	1982	X			X			X	X				X
7	1975	X			X			X	X			X	
8	198?	X			X		X		X				X
9	1975	X			X		X		X				X
FGD5												
1	1991	X			X		X		X		X		X
2	1964	X			X			X		X			X
3	1979	X			X			X		X		X	
4	1975	X			X			X		X			X
5	1977	X			X			X		X		X	
6	1983	X			X			X			X	X	
7	1969	X			X			X	X				X
8	1944	X			X			X	X			X	
9	1958	X			X			X		X			X
10	1956	X			X			X	X				X
11	1985	X			X			X			X		X
12	1993		X		X			X			X		X
13	1973	X			X			X		X		X	
FGD6												
1	1991	X			X		X			X		X	
2	1988	X			X			X			X		X
3	1986	X			X			X		X			X
4	1984	X			X			X		X			X
5	1944	X			X			X	X				X
6	198?	X			X			X	X				X
7	1994	X			X		X			X			X
8	1989	X			X		X		X				X
9	1976	X			X			X		X			X
10	199?	X			X			X			X		X
11	199?	X			X		X			X			X
12	1956	X				X		X				X	
13	1988	X			X			X		X			X
14	1984	X			X		X			X			X

FGD7													
1	1982	X		X				X			X	X	
2	1994		X	X				X			X	X	
3	1985	X		X				X			X	X	
4	1997	X		X				X			X	X	
5	199?		X	X				X			X	X	
6	1974	X		X				X			X	X	
7	1972	X		X				X			X	X	
8	1967	X		X				X			X	X	
9	1975	X		X				X			X	X	
10	1989	X		X				X			X	X	
11	1976	X		X				X			X	X	
12	1972	X		X				X			X	X	
FGD8													
1	1992		X		X			X			X	X	
2	198?	X			X			X			X	X	
3	1963	X			X			X			X	X	
4	1976	X			X			X		X			X
5	196?	X			X			X		X			X
6	1969	X			X			X	X				X
7	1976	X			X			X	X				X
8	1975	X			X			X	X				X
9	1977	X			X			X	X				X
10	1984	X			X			X		X			X
11	1962		X		X			X	X				X
12	197?	X			X			X		X			X
13	1981	X			X			X	X				X
14	1974	X			X			X	X				X
15	196?	X			X			X	X				X
16	1935	X			X			X	X				X

Annex 2. General characteristics of participants for stage 1 activities

	Ethnicity			Educational level			Forest exploitation		Household annual income (VN$ millions)
	Kinh	Ma	Tay	No education	Primary	Other	No	Yes	
Total	12	90	3	38	38	29	58	47	42
%	11	86	3	36	36	28	55	45	
Female group	0	12	0	7	3	2	7	5	21
%	0	100	0	58	25	17	58	42	
Male group	0	15	0	2	11	2	15	0	29
%	0	100	0	13	73	13	100	0	
Mixed group	0	12	2	7	4	3	11	3	14
%	0	86	14	50	29	21	79	21	
Group with main income from crop production or livestock	0	9	0	6	2	1	3	6	38
%	0	100	0	67	22	11	33	67	
Group without forest land tenure	0	13	0	4	6	4	5	8	25
%	0	100	0	31	46	31	38	62	
Mixed group	0	13	1	3	8	2	2	12	14
%	0	93	7	21	57	14	14	86	
Kinh ethnic group	12	0	0	0	0	12	12	0	188
%	100	0	0	0	0	100	100	0	
Group with forest land tenure	0	16	0	9	4	3	3	13	24
%	0	100	0	56	25	19	19	81	

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