



# Technical guidelines for research on REDD+ project sites

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Global Comparative Study on REDD+

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Cover photo: Enumerator Genildo Macedo conducts a household survey with a couple from the community of Barro Alto in Acre, Brazil. © Amy Duchelle/CIFOR

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# 1 The purpose of this document

These technical guidelines are intended to serve six main purposes:

- A key reference document for members of the research team;
- A means for outside experts to understand and provide critical feedback on the study;
- A guide to enable non-CIFOR collaborators to conduct this form of research on their own;
- A source of information for REDD+ proponents on research activities conducted at their project sites;
- A way for donors to better understand the technical attributes of what they are funding; and
- A source of information on methods decisions for team members writing scientific reports.

The first purpose listed above is the most important (in terms of frequency of use of these guidelines) and is therefore elaborated. The guidelines shall be used as the framework for orientation and instruction for the enumerators and data encoders. They shall be used by the enumerators as a source of information on the general aims of CIFOR, of GCS-REDD+, and of this research activity in particular, so that this information can be conveyed (for example) to village respondents, project proponents, and officials in the field. The guidelines shall be used by enumerators as a means to resolve methodological issues that may arise in the field when they are out of contact with the Field Research Supervisor. Among other purposes, the research team will use this document as a basis for knowing the exact meaning of certain variables measured in the survey. The encoder will use this document, among other purposes, as a guide for interpreting the answers recorded in survey forms.

These technical guidelines are a 'living document.' They will be modified and improved in the course of the orientation, instruction and pre-testing, and implementation phases of the research activity.



## 2 Background

### 2.1 What is the Center for International Forestry Research?

CIFOR is one of 15 centres within the Consultative Group on International Agricultural Research (CGIAR). CIFOR's headquarters are in Bogor, Indonesia. It also has offices in Asia, Africa and South America. CIFOR advances human wellbeing, environmental conservation and equity by conducting research to inform policies and practices that affect forests in developing countries.

### 2.2 What is REDD+?

REDD stands for reduced emissions from deforestation and forest degradation.

In the CIFOR book 'Realising REDD+', REDD+ is defined as follows: 'We use REDD+ as an umbrella term for local, national and global actions that reduce emissions from deforestation and forest degradation, and enhance forest carbon stocks in developing countries (REDD+). The plus sign indicates enhancement of forest carbon stock, also referred to as forest regeneration and rehabilitation, negative degradation, negative emissions, carbon uptake, carbon removal or just removals. [Removals refer to sequestration of carbon from the atmosphere and storage in forest carbon pools.] ... REDD+ is shorthand for both a set of policies or actions that aim to reduce emissions and increase removals and for the final outcomes of those policies or actions (i.e. reduced emissions and increased removals)' (Angelsen *et al.* 2009:2).

### 2.3 What is the Global Comparative Study on REDD+?

GCS-REDD+ is being implemented to provide knowledge and expertise so that REDD+ can be implemented successfully. Tropical forest countries are beginning to develop policies and initiate projects to reduce emissions from deforestation and forest degradation. Everyone involved—project proponents, government ministries, donors and United Nations agencies—needs to know what works and what doesn't. But given the urgency of climate change, we don't have the luxury of decades to study and publish before refining pilot programmes. The information is needed in real time.

CIFOR will analyse REDD+ policy, practice and implementation and disseminate lessons learned to a national and global audience. Our goal is to generate knowledge and practical tools to support efforts to reduce forest emissions in ways that are effective, efficient and equitable and that generate co-benefits such as poverty alleviation and biodiversity conservation. CIFOR intends to make this information easily accessible to our partners and the entire REDD+ community.

The goal is to influence REDD+ design and implementation at three scales:

- Local: Site and landscape project activities, including methods for community-based monitoring
- National: Development of strategies and policies, including scenarios for national reference levels
- Global: REDD+ architecture in the global post-2012 climate protection agreement

Our partners include project practitioners, who have much to gain from analytical reflection on their own activities and those conducted around the world; policy makers, who require an impartial guide for course corrections; donors and aid agencies, who look for guidance on low carbon development pathways; and negotiators who require knowledge on feasible mitigation options. Through this initiative, CIFOR will inform the pre-2012 period in designing national and international REDD+ architecture, and the post-2012 period in implementing them.

The work is divided into four interrelated and simultaneous components.

- **Component 1** will analyse REDD+ policies and processes
- **Component 2** will observe and document the implementation of project activities and their impacts
- **Component 3** will develop reference levels and monitoring systems, and
- **Component 4** will widely share the results of the research.

At least six countries in Latin America, Africa and Asia will serve as laboratories during this four-year initiative (2009–2012). In the first year we are working in six countries: Bolivia, Brazil, Cameroon, Tanzania, Indonesia and Vietnam.

Annual workshops and conferences will be used as an opportunity to share ideas and preliminary lessons. Concrete products will be produced on a regular basis to support REDD+ implementation. These include a book on national REDD+ strategies and policies launched at UNFCCC COP-15 in Copenhagen, an interactive website with extensive scientific and technical information, working papers and various other publications and guidelines to help practitioners conduct their own monitoring and learning as our findings become available.

## **2.4 What is Component 2 of GCS-REDD+?**

Component 2 will conduct research at approximately 20 REDD+ project sites in five countries, including Brazil, Cameroon, Tanzania, Indonesia and Vietnam.

Knowledge generated from this component will assist first-generation REDD+ practitioners to improve their performance in attaining 3E outcomes, provide guidance to design second-generation (post-2012) REDD+ activities and will serve as one reference point for evaluating the success of national REDD+ policies and practices (Component 1).

The research involves collecting data before and after implementation of study interventions to see changes in human welfare, carbon stocks and other relevant outcomes. Where feasible, the research design will include comparisons among REDD+ project sites and comparable sites that are not part of the REDD+ initiative ('control sites').

The research will include not just impact evaluation on the outcomes of REDD+ but also process evaluation on how REDD+ is implemented.

In-depth research at 'intensive' sites (including household surveys) will be complemented by less detailed data-gathering at 'extensive' sites. Component 2 will create a global database on REDD+ posted at a website.

The main product of Component 2 in the first study year will be a 'Guide to Learning about the livelihood impacts of REDD+ Projects.' The guide will be a valuable tool to help practitioners measure progress towards effective, efficient and equitable outcomes and make course corrections during REDD+ implementation.

## 3 Research design

### 3.1 Research problem

Climate change is defined by the Intergovernmental Panel on Climate Changes as: ‘a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity’ (IPCC 2007:30).

Warming of the earth’s climate is now unequivocal (IPCC 2007:30) and threatens a range of problems including: strong effects on biological systems; rising water temperatures, changes in ice cover, salinity, oxygen levels and circulation; and changes in natural and human environments (IPCC 2007:31-33). There are a range of projected impacts including: threats to the resilience of ecosystems; regional variability in crop productivity; risks to coastal populations; and negative effects on health, nutrition and safety for millions of people (IPCC 2007:48).

Land cover change (including deforestation and degradation) is said to contribute as much as 20% of total annual greenhouse gas emissions. However, a recent study says the total may have been only 12% in 2008 (van der Werf *et al.* 2009). REDD+ has been proposed as a way to significantly reduce deforestation and degradation, and in its latest permutation, to restore and perhaps establish new forests, through performance-based payments. First-generation REDD+ projects are a trial phase in the run-up to a post-2012 (post-Kyoto Protocol) second-generation phase.

REDD+ is experimental and little is known about how it can and will perform. Although it incorporates some past policies aimed at reducing deforestation and degradation (e.g. implementation of ‘policies and measures’ including, for example, prohibition of illegal logging), it also incorporates policies that are innovative (e.g. marketing of forest carbon, performance-based payments and large-scale financing).

REDD+ is multifaceted and goes beyond carbon sequestration. REDD+ policies and performance-based payments generally aim to improve forest-based carbon sequestration effectively, efficiently and equitably, and with co-benefits (the 3Es and co-benefits, see below).

### 3.2 The 3Es and co-benefits

The effectiveness, efficiency, equity, and co-benefit criteria (3Es+) of REDD+ are defined as follows in Angelsen *et al.* (2009:5):

*'Effectiveness* refers to the amount of emissions reduced or removals increased by REDD+ actions. Are the overall climate targets met? *Efficiency* refers to the costs of these emissions reductions or removal increases. Are the targets being achieved at minimum cost? *Equity* refers to the distribution of REDD+ costs and benefits. Are the benefits shared and the costs allocated fairly?'

**Effectiveness** An *ex ante* evaluation of the effectiveness of a proposal would consider subcriteria such as depth and additionality, breadth and scope, flexibility and robustness, control or avoidance of leakage, permanence and liability, and to what extent the action is targeting the key drivers of deforestation and degradation. Governance and corruption would also be important considerations. For example, to what extent is the proposed action vulnerable to corrupt practices? An *ex post* evaluation would measure changes in forest carbon stocks directly, and compare with a business-as-usual (BAU) baseline.

**Efficiency** criteria would consider start-up costs (including capacity building), running costs of financial and information (MRV) systems, compensation for lost income (opportunity cost) and rent (rent equals transfers minus costs) along with the implementation costs of forest owners, managers and users. All these, except compensation and rent, are transaction costs.

**Equity** criteria would consider different scales (global, national and subnational) and groups of stakeholders based on income, assets such as land, ethnicity, gender and so on. In assessing equity there is also a distinction between REDD+ rents, the overall transfers and the costs of the action. The debate focuses more on sharing benefits (transfers) than on distributing costs.... Many REDD+ schemes will make no direct payments to forest owners and users, but will impose costs or lost opportunities. For example, policies that reduce demand for wood fuels will cause charcoal producers to lose income (Chapter 19). Such costs should also be considered.

REDD+ is not only about climate change. Other goals, known as '**co-benefits**' (i.e., benefits in addition to reduced climate change) are also important. There are at least four types of co-benefits to consider. First, forest conservation, in addition to storing carbon, provides other environmental services, such as preserving biodiversity. Second, REDD+ actions (e.g. financial flows) and forest conservation might have socio-economic benefits, such as reducing poverty, supporting livelihoods and stimulating economic development. Third, REDD+ actions may spark political change toward better governance, less corruption and more respect for the rights of

vulnerable groups. Fourth, REDD+ actions and forest conservation could boost the capacity of both forests and humans to adapt to climate change.’

Note that in GCS-REDD+ we give attention to all four co-benefits mentioned above, but we give disproportionate attention to the first three. The comparative lack of attention to the fourth co-benefit (human adaptation) results from recognising that we cannot give equal and adequate attention to the full range of relevant issues in this study. Funds and time allowing, we will attempt to elevate our attention to this issue.

### **3.3 Goal of the research**

The goal of GCS-REDD+ is to conduct research that serves to improve the design and implementation of REDD+ with respect to the 3E and co-benefits criteria. Component 2 intends to contribute to this goal through research on REDD+ project sites.

### **3.4 Research questions in Component 2**

#### **3.4.1 Background**

Arguably, concern about the effectiveness of REDD+ has to occupy a central place in research aimed at analysing its strengths and weakness and improving it. After all, REDD+ has emerged mainly (though not only) because of concerns about how to preserve and improve forest carbon sequestration in the context of climate change.

Yet for various reasons it is not only appropriate but also necessary to give strong attention to efficiency, equity and co-benefits in research of the kind being undertaken:

**Variability of REDD+ motivations.** REDD+ projects have varying priorities other than effectiveness. Some are driven primarily by the opportunity to obtain a stream of profit through the marketing of forest carbon credits (i.e. efficiency concerns). Some are projects imbued with a strong social agenda, for example, obtaining a new source of income for forest dwellers and assuring that forest dwellers have a voice in shaping their future (e.g. community-based carbon monitoring) (i.e. equity, and co-benefits in the sense of wellbeing and local governance). Some are pre-existing biodiversity conservation projects relabeling themselves to take advantage of a new stream of funding (i.e. co-benefit in the sense of biodiversity protection). Since REDD+ projects tend to optimise on different criteria, it is appropriate to give adequate attention to all those criteria for analytical reasons.

**The liability of tunnel vision.** It is well known that past programmes and projects aimed at reducing deforestation and degradation have failed to achieve their goals if they focus on a biophysical outcome and do not give attention to the social, institutional and political context in

which the programmes and projects are being implemented. Successful REDD+ implementation, even if the primary focus is the carbon benefits, needs to pay attention to equity concerns and the benefits to the local population.

REDD+ is being implemented with multiple goals not just because of the multiplicity of motivations (as above) but also because of normative and ethical considerations that result from past failures. This is reflected in the widespread conformity to CCB standards for third party certification of REDD+, which give strong attention to equity and co-benefits. So for normative reasons it is appropriate for REDD+ research to take on board the broad agenda that animates REDD+.

And yet it is not possible to give attention to all of the 3Es and co-benefits as outcome criteria of equal weight. The causal relationships among the variables related to the criteria are too many to measure in even a well-funded research effort. It is necessary to constrain our attention in order to make the research effort manageable and to focus on the policy and institutional issues that merit the most attention.

In light of these realities and constraints we have chosen to give equal weight to the 3Es and co-benefits at the level of general analysis based on the aggregated data (see ‘core concern’ and ‘first-level questions’ below), yet to give priority attention to effectiveness in the site-level analysis (see ‘second-level questions’ and ‘hypotheses’ below).

Although we give priority attention to effectiveness at the level of the site (effectiveness is the dependent outcome in the first five of seven questions), note that:

- We give strong attention to efficiency, equity, and co-benefits and their effects on effectiveness (questions 1, 3, 4, 6 and 8).
- We give attention to equity and co-benefits as outcomes (questions 2, 5 and 7).
- In spite of our strong attention to effectiveness, the general hypotheses used for measuring effectiveness (1-11) are the same hypotheses used to measure efficiency in the sense of efficiency as opportunity cost (4-11) and equity and co-benefits (4-11).

So in the end, in spite of a strong focus on effectiveness, the research will give adequate attention to efficiency, equity and co-benefits.

### **3.4.2 First-level questions (posed at level of all sites)**

1. Do the first generation REDD+ projects attain the 3E+ criteria?
2. If yes, how?
3. If not, why not? Based on this knowledge, how do we improve the design and implementation of 1st and 2nd generation projects?

### **3.4.3 Second-level questions (posed at specific sites)**

1. To what extent did the REDD+ intervention reduce forest-based emissions and increase removals? [Effectiveness]
2. How are the benefits and costs of the REDD+ intervention distributed across different groups of stakeholders? [Efficiency and equity]
3. Are the emission reductions of the REDD+ intervention achieved at a level of cost (transaction, opportunity) that can be justified? [Efficiency -> effectiveness]
4. To what extent is REDD+ effectiveness a function of fairness in benefit and cost sharing arrangements among the stakeholders? [Equity -> effectiveness]
5. What impact did the REDD+ intervention have on community- and household-level wellbeing? [Co-benefits (wellbeing)]
6. To what extent is REDD+ effectiveness a function of the degree to which the intervention has protected and enhanced community- and household-level wellbeing? [Co-benefits (wellbeing) -> effectiveness]
7. What impact did the REDD+ intervention have on the quality of local governance and on the security of rights to forest resources and land? [Co-benefits (governance)]
8. To what extent is REDD+ effectiveness a function of the degree to which the intervention has supported good local governance and the security of rights to resources? [Co-benefits (governance) -> effectiveness]
9. What impact did the REDD+ intervention have on environmental co-benefits (conservation of biodiversity, water, soils)? [Co-benefits (conservation)]
10. To what extent is REDD+ effectiveness a function of the degree to which the intervention has addressed environmental co-benefits (conservation of biodiversity, water, soils)? [Co-benefits (conservation)→ effectiveness]



### **3.4.4 Hypotheses (general)**

*Effectiveness* in REDD+ requires:

1. Sufficient attention to efficiency, equity and co-benefits
2. Accurate identification of the drivers of deforestation and degradation
3. Appropriate interventions targeted at the drivers of deforestation and degradation
4. Prior resolution of contested property rights over land, natural resources and carbon
5. Assuring local acceptance of, and participation in REDD+ for example:
  - a. Getting local permission for REDD+
  - b. Education about climate change and REDD+
  - c. Involvement in the design and implementation of REDD+
  - d. Transparency in implementation
6. Appropriate targeting of benefits, for example
  - a. Sufficient portion to communities in relation to other stakeholders
  - b. Household-level benefits as opposed to community-level benefits
  - c. Ensuring the poor and women benefit
7. A distribution of benefits and costs that is considered fair among the major stakeholders
  - a. All major stakeholders have net benefits from the REDD+ project
  - b. Legitimacy is supported by no one stakeholder group getting a disproportionate share. No group gets benefits well above others

*Efficiency* (in the sense of low transaction cost) in REDD+ is favoured by:

8. Well-defined and functioning local governance institutions
9. Working through existing community organisations
10. Implementation through government structures rather than through private project structures

11. Larger-scale REDD+ (relatively lower transaction costs per unit of land-use change)

*Efficiency* (in the sense of low opportunity cost to community) in REDD+ is favoured by:

4–11 above

*Equity and co-benefits* in REDD+ require:

4–11 above

### **3.4.5 Hypotheses (specific)**

These hypotheses are stated or implied in the general hypotheses above. They are more refined and therefore (possibly) more testable.

#### *Effectiveness*

REDD+ ineffectiveness results from the failure of project proponents to accurately identify the key drivers of deforestation and degradation.

REDD+ ineffectiveness results from the failure of project proponents to compensate the right stakeholders, or to compensate the right stakeholders sufficiently for their opportunity costs.

REDD+ interventions will be more effective in communities that already have relatively strong institutions for managing resources and resolving conflicts.

Unlike many previous conservation programmes, REDD+ will effectively reduce deforestation and degradation because it is performance based, with benefits delivered if, and only if deforestation and degradation are actually reduced.

#### *Efficiency*

Unlike many previous conservation programmes, REDD+ will reduce deforestation and degradation at reasonable cost because it is performance based, with benefits delivered if, and only if deforestation and degradation are actually reduced.

#### *Equity*

REDD+ projects fail to promote equity among local stakeholders if a disproportionate share of REDD+ income goes to the government.

REDD+ projects fail to promote equity if they do not build in special mechanisms to ensure that the poorest households in a community have access to new benefits that more than proportionately compensate for any losses.

The distribution of net local benefits from REDD+ is biased against the poorest (landless, unemployed, female-headed households), who carry disproportionately higher opportunity costs (e.g. of not clearing new land, making charcoal) and receive fewer benefits (e.g. by owning no, or little forest to be remunerated) (distributional impacts).

*Co-benefits (wellbeing)*

REDD+ projects that provide compensation at the level of the community will generate the same level of local wellbeing as REDD+ projects that compensate at the level of the household.

REDD+ reduces local people's own access to forest products and forest conversion, which will, all else being equal, reduce their welfare (locally borne REDD+ costs).

REDD+ reduces external actors' forest access, thus better protecting the forest, to the benefit of local people (local resource pool improvement).

REDD+ compensations to local people (monetary or in-kind) more than outweigh any prospective losses in net productive income (compensations).

*Co-benefits (local governance)*

REDD+ interventions that make use of local institutions for the implementation of the project will end up strengthening those institutions.

*Co-benefits (tenure)*

REDD+ project sites that fail to resolve pre-existing ambiguity and contestation over ownership of forest resources (including carbon) will create even more ambiguity and contestation over these resources.

*Co-benefits (conservation)*

REDD+ implementers select target areas not just for their high carbon values, but also for their high value for biodiversity conservation.

REDD+ implementers introduce forest management interventions that go beyond the narrow carbon objective and aim to achieve biodiversity conservation.

### **3.5 Operational definition of REDD+**

In laying the groundwork for this research project, we have been making an inventory of REDD+ sites around the world, with a focus on the six countries where we began our research. In conjunction with creating this inventory we have created a typology and operational definition

of REDD+ for research purposes. Our objective has been to identify the various models that carry the name 'REDD+', to understand how they vary by function and aim, and to define which kinds of REDD+ we will and will not include in our research.

The following paragraph from Sills *et al.* (2009) specifies our definition: 'REDD+' implies actions to 1) reduce emissions by avoiding deforestation and forest degradation, and 2) increase removals, which means enhance carbon stocks through forest restoration, rehabilitation and conservation. ... We focus on projects that generate their net reductions in carbon emissions by avoiding deforestation/degradation or by enhancing carbon stocks in existing forest ... We de-emphasise afforestation and reforestation (A/R) projects that are currently eligible for the Clean Development Mechanism (CDM), because it is uncertain whether they will be included in the REDD+ mechanism ..., and because much is already known about the CDM and parallel activities in the voluntary market ...

The term 'project' refers to activities that:

1. intend to quantify and report changes in forest carbon stocks, following IPCC and/or other broadly accepted guidelines, and possibly transact forest carbon credits; and
2. operate in a geographically defined site or sites, with predetermined boundaries as suggested by UNFCCC guidelines, including activities that aim to incorporate carbon into land use decisions and planning across heterogeneous landscapes at a subnational scale.'

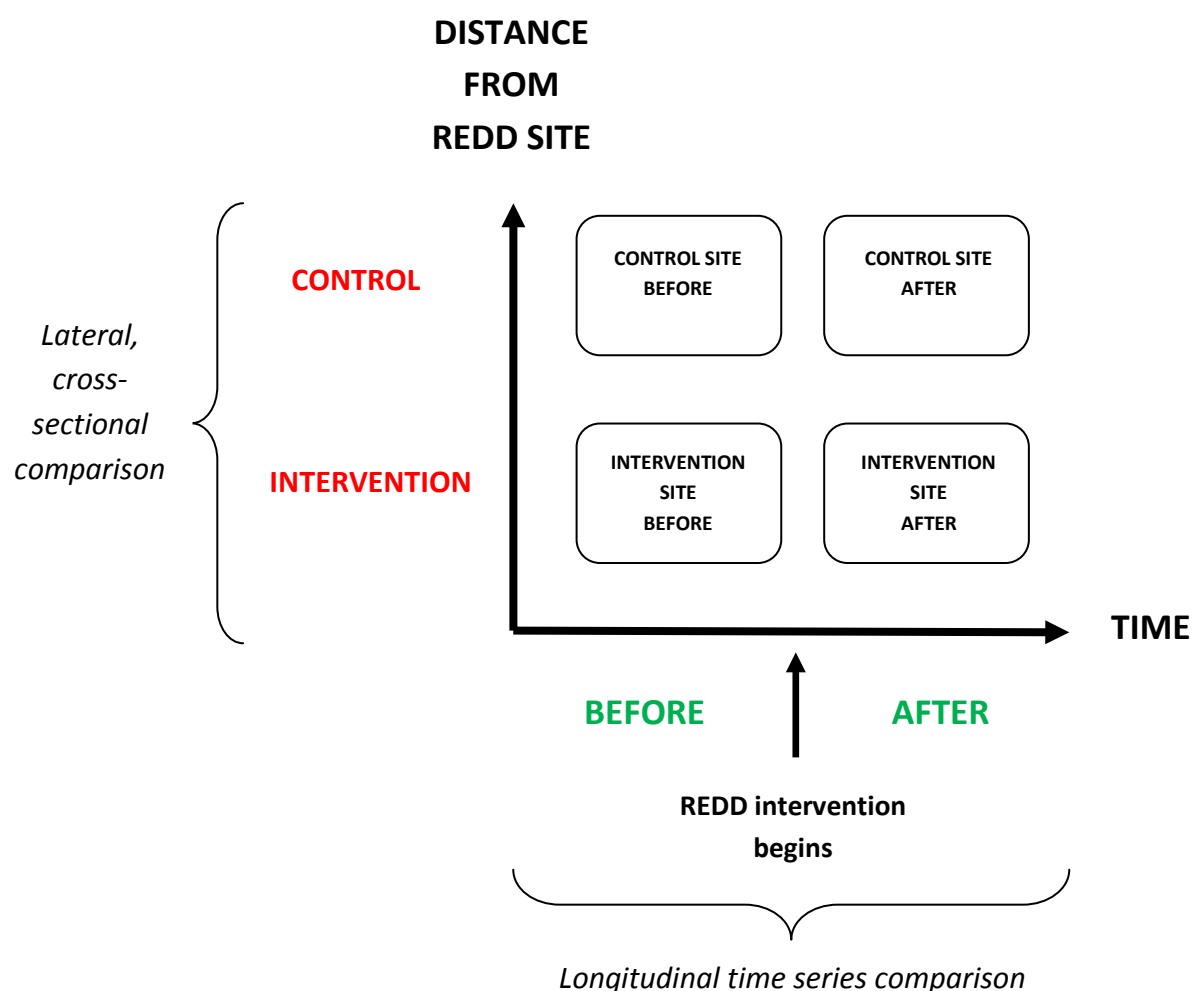
### **3.6 Before-after/control-intervention (BACI) approach**

The Before-After and Control-intervention (BACI) approach is an ideal experimental method for both the socio-economic and biophysical components of the project (See Figure 1).

Identical data are collected using various survey instruments at two time periods: before and after the implementation of project interventions.

Identical data are collected both before and after and at two types of sites: the 'intervention' site (that is, the location that is impacted by the REDD+ interventions within the project boundary) and the 'control' site (that is, the location nearby to the impact site that is not impacted by the REDD+ intervention but has similar characteristics to the intervention site).

The 'before' phase is cautiously defined as the period prior to delivery of payments or related project interventions. We say 'cautiously' recognising that there will be some prior effects on project participants merely by the fact that the project has been declared in the village. The control site serves as counterfactual for intervention sites, that is, as a reference site that indicates what would have happened without the intervention.



**Figure 1 Before-after/control-intervention (BACI) method in Component 2 research**

### **3.6.1 Challenges in conducting BACI research**

There will be significant challenges in carrying out BACI research at REDD+ projects sites.

Some of these challenges that concern the before-after dimension are as follows:

- The need to assure that the 'before' phase lasts long enough so that the 'before' research can be carried out uncontaminated by 'after' effects.
- The need to assure that the project site moves from 'before' to 'after' in a timely way. Assuming that it will take about two to three years for some of project outcomes to be discernible and measurable, it is important that project onset not be delayed too long given the four-year timeframe of the research.

- It is possible that some of the 3E+ outcomes will not be clearly measurable within the four-year timeframe of the research project, requiring us to conduct the 'after' research after the four-year period.

Some of the approaches to dealing with these challenges are discussed below in Section 3.11 on project site selection.

Some of the challenges that concern the control-impact dimension are as follows:

- The ideal control site should be the same as the intervention site in some key respects, and be subject to the same influences, except one: the REDD+ project incentives. This is rarely the case in the real world: different bio-geographical resource endowments; proximity to infrastructure and centres of commerce; and the happenstance of shocks (e.g. droughts, floods and fires) are examples of some of the many differences that can nullify the control function.
- The control function can be nullified by REDD+ itself. For example, increased enforcement against logging at the impact site can mean increased logging at the impact site (leakage). For example, increased REDD+ income at the impact site might have multiplier effects that reach the control site.
- In order to avoid these leakage problems the control site should be out of reach of the influence of the intervention site, yet not so far as to mean substantial difference in bio-geographical and livelihood profiles.
- At some locations the project site will occupy a large area (e.g. an entire state or district in some cases) meaning it can be challenging to locate villages that serve as adequate controls.

Some of the approaches to dealing with these challenges are discussed below in Section 3.12 on village selection.

### **3.7 Process and impact assessments**

The Component 2 research aims to measure not only project site 3E+ impacts (before-after comparison) but also the process of setting up the REDD+ project site (process outcomes in the 'before' phase). Subjects of study in the process assessment include the involvement of local population in consent, participation in conceptualisation and implementation of the project, and prior project attention to tenure issues, among others.

For further discussion of our approach to process and impact assessments see Jagger *et al.* (2009:284-285).

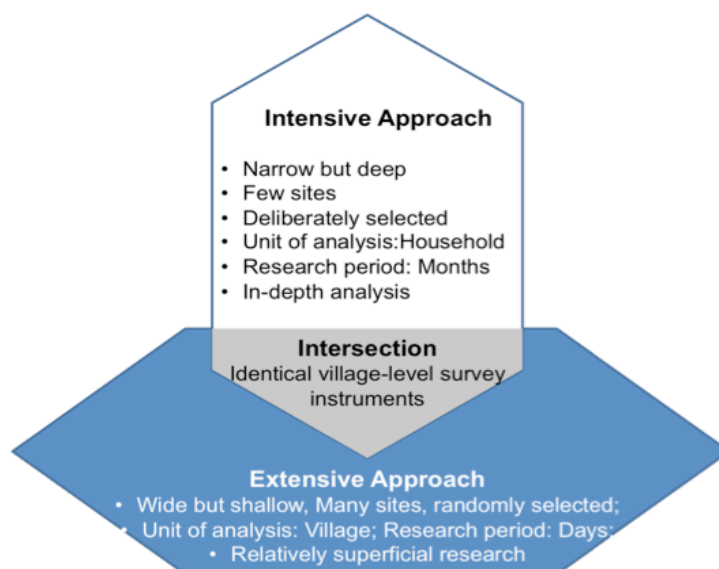
### 3.8 Intensive and extensive dimensions of research

The Component 2 research will combine intensive and extensive dimensions. The intensive research will involve in-depth field research carried out at a limited number of sites over a period of three months at each site. The units of analysis at the intensive sites will be the project and village, and also the household. The extensive research will involve less-in-depth field research carried out over a period of several days at each site. The units of analysis at the extensive sites will be the project and the village, but not the household.

The reason for this approach is to assure both depth and breadth. Relying on the intensive approach alone risks producing rich research results that are not necessarily representative of the wider universe of REDD+ sites in a given country. Relying on the extensive approach alone risks results that are highly representative yet produce little detailed knowledge.

The intensive and extensive dimensions are linked. The proponent appraisals (to obtain basic information about the project sites and the villages), implementer surveys, and the village-level surveys (group interviews with villagers) will be carried out at both intensive and extensive sites. This has two advantages. Every intensive site will, in effect, be an extensive site; expanding the coverage of the extensive research. The identical research instruments used at the village level at both intensive and extensive sites means there may be a basis for measuring to what extent and in what ways findings at the intensive sites can be extrapolated to extensive sites.

Figure 2 illustrates the basic differences between the intensive and extensive approaches, as well as their point of unity (identical research instruments at the village level).



**Figure 2 Intensive and extensive dimensions in Component 2 research**

### **3.9 Measurement and monitoring of carbon**

The ability of REDD+ project sites to reduce deforestation and degradation, to sequester carbon, and to attain additionality goals will be measured in a variety of ways.

GIS and remote sensing data will be used to detect forest cover change between the 'before' and 'after' phases at intensive and extensive sites. At intensive project sites, the measurement will include a comparison and contrast of intervention and control villages where feasible.

Publicly available remote sensing imagery will be relied upon, complemented in some cases by purchased images where necessary and feasible.

CIFOR welcomes the use of proponent forest cover measurements and MRV data if they can be made available. Early in the research, Component 2, in collaboration with Component 3, will conduct an assessment of the adequacy of the proponent's MRV methods at intensive sites. It is likely that CIFOR will be able to offer training at regional workshops to improve MRV methods in cases where they are judged to be low.

Image-based measurement of land-use change will be complemented by household-level assessment of forest management practices (before and after; control and intervention) at intensive sites. This exercise will only be meaningful in cases where smallholders have a significant role in affecting forest cover.

A central objective of the 'effectiveness' research is to understand the drivers of forest cover change at the national and local levels. We want to know the extent to which proponents have appropriately understood those drivers, and having understood them, to what extent they have put in place an adequate system of measures and incentives for attaining the project's effectiveness goals. A site narrative on the causes of forest cover change will be conducted and periodically updated at all research sites. The approach to conducting the site narrative is explained in Section 4.17.

### **3.10 Country selection**

Table 1 shows the countries where Components 1, 2 and 3 of GCS-REDD+ will conduct their research during the first project year (June 2009 through May 2010) and in the second through fourth project years (June 2010 through May 2013).



**Table 1 Target countries for research in CIFOR's Global Comparative Study on REDD+**

		Year 1			Years 2–4		
Region	Country	C1	C2	C3	C1	C2	C3
Latin America	Bolivia	X	X	X	X		X
	Brazil	X	X	X	X	X	X
	Peru				X		?
Africa	Cameroon	X	X	X	X	X	X
	Tanzania		X		X	X	?
	DR Congo				X		?
Asia	Indonesia	X	X	X	X	X	X
	Vietnam	X	X		X	X	X
	Nepal				X		?

At the beginning of the project the intent was for all components to work in the same countries to maximise synergies and cross-component linkages. Component 2 led the way in country selection and worked in six countries during the first year. The impetus was to get on the ground as soon as possible before the 'before' period (prior to introduction of REDD+ incentives) closed. At the beginning of the second year of the project, Component 2 has scaled back its ambitions. The Bolivia country case fell out because of a decision by the Government of Bolivia not to participate in REDD+. Although Component 2 had initially intended to conduct research in all nine countries, this has proved to be impractical, mainly due to the high costs of conducting field research. Component 1 began in four countries in the first project year and will cover nine countries in years two through four. Component 3 began in four countries and it is as yet unclear how many country cases it will ultimately do.

The following are among the key criteria that entered into the selection of countries for GCS-REDD+. We wanted to aim for:

- Key tropical forest countries (e.g. Brazil, DR Congo and Indonesia) and in particular those that are pioneering REDD+ (e.g. Brazil and Indonesia)
- Balance in the number of countries in each of the three main continental regions (Latin America, Africa and Asia)
- Diversity of stages on the forest transition, for example:
  - A high rate of deforestation and degradation (e.g. Indonesia)
  - Relatively stable forest cover (e.g. Vietnam)
- Countries with sufficiently stable governance and security conditions to enable productive research
- Strong donor interest and funding possibilities, for example:
  - Brazil, Tanzania and Indonesia (Norad)
  - DR Congo (EC–REAFOR)
  - Vietnam (ASB, EU and ESPA)

In choosing target countries, Component 2 was seeking countries that meet the above criteria and that were also sufficiently along the path to REDD+ readiness to justify site-level research.

### **3.11 Project site selection**

Candidate project sites have been selected on the basis of the following criteria:

1. They conform to our operational definition of the term ‘REDD+’—specifically, they aim to reduce net carbon emissions by a) reducing deforestation/degradation or b) implementing forest conservation/restoration/management; that is, they do not derive most of their carbon benefits from afforestation/reforestation outside of existing forest;
2. The activities are to be carried out in a quantifiable manner (with intention to monitor, report, and/or transact reductions in carbon emissions or increases in carbon stock);

3. They either have or will have defined site boundaries and intervention villages before the beginning of the field research;
4. REDD+ incentives will not begin until after May 2010, assuring us a risk-free period in which to collect the 'before' data; and
5. The REDD+ incentives have a reasonable chance of being implemented and maintained in the subsequent 1.5 years (July 2010–December 2011).

The project sites selected for research are shown in Table 2.

**Table 2 Component 2 project sites in five countries (intensive and extensive)**

Country	Project name	Proponent	Location	Intensive or extensive?
BRAZIL	Projeto de Pagamento por Serviços Ambientais no Estado do Acre (Acre State Project for Ecosystem Service Payments)	Secretaria de Estado de Meio Ambiente (SEMA)	State of Acre	INT
	Projeto-Piloto REDD Noroeste de Mato Grosso (Northwest Mato Grosso REDD Pilot Project)	Instituto Centro de Vida (ICV)	Northwest region of Mato Grosso State	INT
	Desmatamento Evitado em Pequenas Propriedades Rurais na Região da Rodovia Transamazônica (Avoided deforestation in small rural properties in the region of the Trans-Amazon Highway)	Instituto de Pesquisa Ambiental da Amazônia (IPAM)	State of Pará	INT
	Amazon Fund Project	The Nature Conservancy Brazil	State of São Felix do Xingu	INT
	Bolsa Floresta	Fundação Amazonas Sustentável (FAS)	Amazonas	INT/EXT
CAMEROON	Païement pour Services Environnementaux (PSE) au profit des communautés du Bassin du Congo (Payment for Ecosystem Services (PES) project in Cameroon South and East Regions)	Centre pour l'Environnement et le Développement (CED)	South and East Regions	INT
	Mt. Cameroon REDD Project	GFA-Envest	Southwest Province	INT
TANZANIA	Community Based REDD Mechanisms for Sustainable Forest Management in Semi-Arid Areas (Case of Ngtilis in Shinyanga Region)	Tanzania Traditional Energy Development and Environmental Organisation (TaTEDO)	Shinyanga	INT
	Making REDD work for Communities and Forest Conservation in Tanzania	Tanzania Forest Conservation Group (TFCG)	Kilosa	INT
	Building REDD Readiness in the Masito Ugalla Ecosystem Pilot Area in Support of Tanzania's National REDD Strategy	Jane Goodall Institute	Kigoma and Mpanda Districts	EXT

Country	Project name	Proponent	Location	Intensive or extensive?
	HIMA: Piloting REDD in Zanzibar through Community Forest Management	CARE	Zanzibar, Unguja and Pemba	EXT
	Making REDD work for Communities and Forest Conservation in Tanzania	Tanzania Forest Conservation Group (TFCG)	Kilosa	EXT
	Combining REDD, PFM and FSC certification in South-Eastern Tanzania	Mpingo Conservation and Development Initiative (MCDI)	Lindi Region, Kilwa District	EXT
INDONESIA	Reducing Carbon Emissions from Deforestation in the Ulu Masen Ecosystem: A Triple-Benefit Project	Government of Aceh	Ulu Masen Ecosystem (covers 5 districts: Aceh Besar, Aceh Jaya, Aceh Barat, Pidie and Pidie Jaya), Aceh	INT
	REDD Pilot Project Development, Community Carbon Pools	Fauna and Flora International Indonesia (FFI-Indonesia)	West Kalimantan	INT
	Kalimantan Forests and Carbon Partnership (KFCP)	AusAID	Central Kalimantan	INT
	Berau Forest Carbon Program (BFCP)	The Nature Conservation (TNC)	Berau District, East Kalimantan	INT
	The Rimba Raya Biodiversity Reserve Project	Infinite Earth	Central Kalimantan	EXT
	Katingan Conservation Area: A Global Peatland Capstone Project	Starling Resources	Central Kalimantan	EXT
VIETNAM	Cat Tien Landscape Pro Poor REDD Project	The Netherlands Development Organisation (SNV)	Lam Dong Province	INT

### 3.12 Village selection

The selection of a 'village', for research must obey a consistent logic so that we maintain scientific integrity within and across countries, and so that we aim for a defined, consistent, and predictable work load for the field research teams. We use 'village' to describe a single village, several villages or portions of villages.

The selection of villages at intensive sites involves first identifying a pool of candidate intervention and control villages, and then using matching to identify a subset of matched

intervention and control villages for study. As such, it is a relatively complex process in contrast to the selection of villages at extensive sites, which only involves identifying intervention villages.

The first two sections below explain the process of selecting candidate intervention villages (first section) and control villages (second section) through use of the proponent appraisal and village appraisal forms. The third section explains the matching process and looks at the ideal model (four intervention and four control villages) and possible deviations from this model. The fourth section discusses the possibility of researching sections of villages (hamlets) rather than villages. The final section explains the selection of villages at extensive sites.

### ***3.12.1 Sampling frame of intervention villages***

The bases for selection of intervention and control villages are closely related, yet different.

Ideally four intervention villages<sup>1</sup> will be selected on the basis of the matching process described below. First, a list of up to 16 project villages will be generated where the proponent has specific intervention goals and approaches. If the number of villages at a project site exceeds 16, the list will be reduced by selecting those villages that have a level of deforestation and degradation that is higher than average or average compared to the mean for all project villages in the last five years. Note that this list is to be made in the table in Exercise 27 of the proponent appraisal.

This list of 16 villages is the sample frame for the selection of four intervention villages. A village appraisal form should then be filled out for each of the 16 candidate intervention villages. This is a preparatory step for finding matched control villages. For more detailed information on the selection of the intervention villages, see the instructions for the village appraisal, Annex 1, and the village appraisal form, Annex 2.

### ***3.12.2 Selection of candidate control villages***

Candidate control villages are by definition villages where we have a high degree of confidence that there will not be any REDD+ project incentives introduced. This is critical. If at some stage the village becomes part of a REDD+ project, it is invalidated as a basis for control data in the 'after' phase and much time and investment is lost.

Candidate control villages will ideally be outside of project boundaries to assure that they remain control villages in the 'after' phase. However there are imaginable conditions in which

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<sup>1</sup> The proponent appraisal and village appraisal exercise as originally worded aims for three, not four intervention villages. The Research Design Team made a decision in June 2010 that four villages would be a more appropriate target.

control villages can be selected from within project boundaries. This would be the case at a project site where, for whatever reasons, the proponent has decided that certain villages will not have project interventions.

Candidate control villages must be far enough away from intervention villages so that there will be no activity leakage (i.e. farmers cannot open land anymore in the project area because of REDD+ interventions, so they move outside the area and open land there) or market leakage (i.e. successful reduced deforestation increases prices of logs in the region, giving incentives for people outside the project area to deforest elsewhere).

As mentioned earlier, control villages must be virtually identical to intervention villages in certain key respects. The only notable difference should be the absence of REDD+ incentives in the control village. The matching process starts with filling in village appraisal forms for each of the 16 candidate control and 16 intervention villages; these forms are then sent to CIFOR researchers who will then match control villages and intervention villages.

For detailed instructions on how to select control villages and to use the Village Appraisal Form, see the 'Instruction for Village Appraisal Form' (Annex 1).

In summary, there are three main criteria for an ideal control village:

- It will never be subject to REDD+ incentives.
- It is far enough away from REDD+ intervention villages to avoid leakage effects.
- It is well matched to a specific intervention village on the basis of key village selection variables.

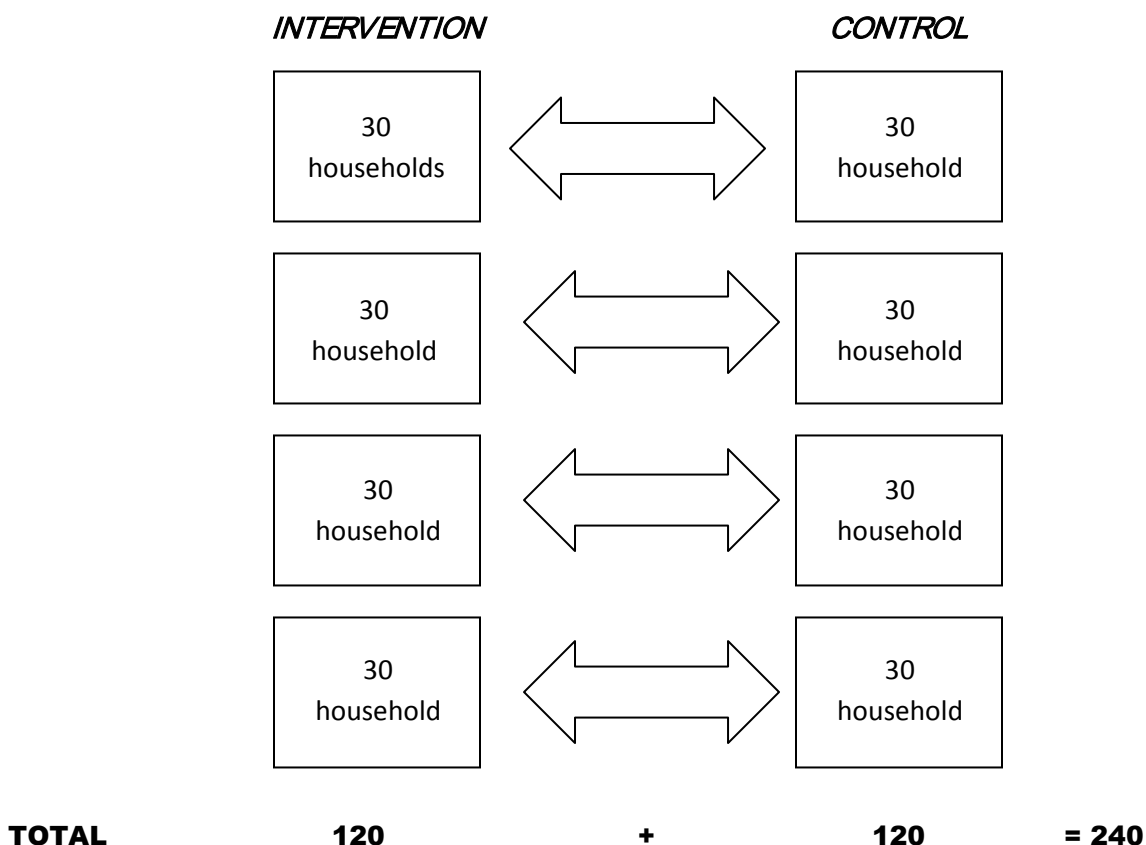
### ***3.12.3 Selection of villages through matching at intensive sites***

Under ideal conditions, we select four intervention villages and four control villages for a total of eight research villages at each intensive project site. To obtain a short list of final study intervention and control villages, the matching exercise proceeds in the following stages:

1. We identify a subset of variables from the village appraisal exercise that are a) consistently measured across all GCS-C2 villages in Brazil, Cameroon, Indonesia, Tanzania and Vietnam, and b) help explain likelihood of a village being an intervention village. These eight characteristics include deforestation pressures, NGO presence, strength of forest tenure, number of active community groups, population size, extent of forest cover around village, high forest dependence and distance to main road (or main transportation hub, where river transport is more significant).

2. We create a weighted average of the eight variables for every site, where the weights are the inverse of the elements of variance-covariance matrix of this set of eight variables (i.e. the noisiest variable gets the least weight).
3. We identify a subset of four intervention and control variables for which the index values are closest as measured by balance in mean values of each of the eight variables. That is, for the set of intervention villages, the mean for each variable is statistically similar to the mean for the same variables for the control villages. The index is called the Mahalanobis metric. The routine is implemented using Stata software.
4. This approach matches a *set* of intervention villages and a *set* of control villages. The original plan was to match intervention and control villages one-to-one. This plan was abandoned realising that, through this approach, the loss of one village (e.g. a control village becoming an intervention village) forces the loss of its pair.

In this four-by-four model, there will be a total of 30 sample households in each village for a total of 240 sample households (Figure 3).



**Figure 3 Sample of study villages under ideal conditions**



There are various imaginable departures from this ideal scenario:

- At a project site that has only three, two, or one villages, we will reduce the number of intervention villages studied and will adjust the number of households sampled accordingly (three villages  $\times$  40 households; two villages  $\times$  60 households; one village  $\times$  120 households). The aim is to assure a minimum of 120 intervention households.
- Likewise the number of control villages associated with a given project site may be fewer than four if four good matches cannot be found. As in the case of intervention villages, the model might be three villages  $\times$  40 households, two villages  $\times$  60 households, or one village  $\times$  120 households. The aim is to assure a minimum of 120 control households.
- There is no absolute requirement for the number of intervention villages and the number of control villages to match at a give project site. For example there might be two intervention villages ( $\times$  60 households in each village = 120 households) and there might be four control villages ( $\times$  30 households in each village = 120 households).
- It is possible there will be project sites where the intervention village or villages have no good matching controls. In those cases it might be feasible and useful to increase the number of intervention villages beyond four and/or to increase the number of sampled households.

Following the protocol set up in the proponent appraisal, ideally the intervention villages are composed of one village where the proponent believes the success of REDD+ will be the highest, and the other villages are a random sample from the (up to 16) candidate intervention villages listed in Exercise 27 in the proponent appraisal. However it is possible that the village chosen by the proponent will be substituted as long as it matches reasonably well with a control village. Why? Even though the matching exercise improves balance, there is uncertainty about the implementation of REDD+ activities. In villages chosen by the proponent, this uncertainty is low.

#### ***3.12.4 Size of village and possible use of village subunits***

As a rough benchmark we are aiming for villages that range from 50 to 200 households, though exceptions will be allowed through discussion with the research project leadership.

In cases where the village size exceeds 200 households, or in cases where subvillages are widely dispersed, or in cases where the REDD+ project is targeting subvillages at project sites, it is advisable to select a subvillage instead of a village.

In these cases the household survey will be carried out in the subvillage, but the village and women's surveys will be carried out at the level of the village. Why? Because in the village and women's surveys we treat the village as an integral decision-making unit (governance issues) and because in some cases the secondary data sought for the first half of the survey form will be aggregated at the level of the village. In cases where it is clearly beneficial to conduct the village and women's surveys at the level of the subvillage, this may be done, but only on the basis of a prior discussion with FRCs or project leadership in Bogor.

### **3.12.5 Selection at extensive sites**

Recall that at intensive project sites the BACI research model is applied, whereas at the extensive project sites a BA research model is applied. This means that at extensive project sites, intervention villages are selected, but not control villages.

At extensive project sites, ideally four intervention villages are selected following exactly the same procedure as for the intensive project sites. As in the case of intensive sites, there can be deviations from this model in accordance with the limitations specified above.

## **3.13 Household selection**

### **3.13.1 General approach**

As explained above, under ideal conditions (the 4 × 4 model) there will be 30 households sampled from each of eight villages for a total of 240 households in the research related to each REDD+ project.

The following rules must always be followed:

- There will always be a minimum of 240 households targeted at all intensive sites.
- There will always be a minimum of 120 households targeted in the aggregate total of intervention villages at a given intensive site.
- There will always be a minimum of 120 households targeted in the aggregate total of control villages at a given extensive site.
- There will always be a minimum of 30 households targeted in any research village (or subvillage) either intervention or control.

### **3.13.2 Simple random sample and possible stratification**

As a general rule the target households should be selected as a simple random sample of all households in the village (or subvillage if such is chosen). See the instructions in Section 7.1 on 'How to conduct a random sample of households.'

In some cases it may be advantageous to stratify the random sample, especially if there is a striking contrast between different segments of the sample population.

If some of the households in the village will be targets of REDD+ incentives and others will not, and if it is known in advance which households will and will not be the target of these incentives, 50% of the sample (15 households) will be REDD+ incentive households and 50% will be non-REDD+-incentive households. This is because it will be important to compare and contrast the effect of REDD+ incentives not only between intervention and control villages, but also within intervention villages, if possible.

There may be other reasons to stratify the sample, for example if two distinct ethnic groups are represented in a village or subvillage, and if it is expected there will be meaningful differences in the data related to these two groups (e.g. income, assets, knowledge of REDD+, etc.). Stratification should only be employed if there is a clear reason for doing so. If there is any doubt, project leadership should be consulted. In all cases where stratification of the sample is done, the reasons, the procedure, and the characteristics of the stratified sample should be recorded and made known to the project leadership, as this will have to be noted in the methods sections of writings coming out of the data.

### **3.13.3 Exceeding the minimum sample size**

If time and resources allow, it is permissible to go beyond the minimum of 30 households per village (or subvillage) and beyond the minimum of 240 households per project site (intervention and control villages).

If the research team deems it desirable to exceed the minimum, it is advisable, but it is not required, to aim for 33 households (in the case of the 4 × 4 model). In addition to providing additional data, going beyond the minimum provides a margin of safety in the event that some of the household surveys prove to be unusable for some reason.

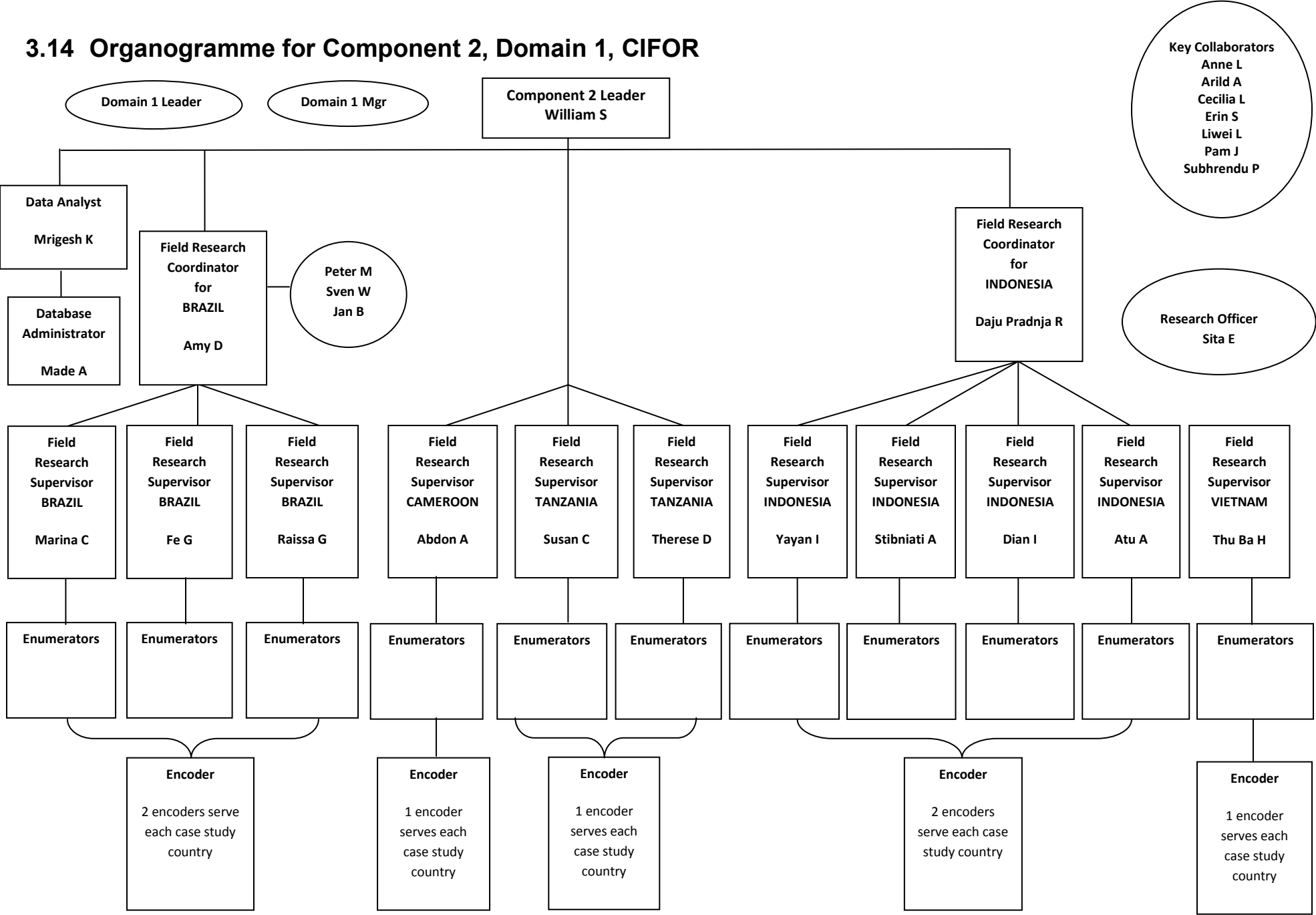
In the event that village size is larger than 120 households, it is advisable, but it is not required, to aim for a sample of 40 households. If this is done, following the logic of the paragraph above, five extra households can be added on for a total of 45 households, as a margin of safety.

#### **3.13.4 *How to select a random sample of households***

Always draw a sample size sufficient to cover the target number (i.e. the minimum of 30 households, or the 33 households if it is decided to exceed the minimum) and also the list of replacement households. The random sample should always include a list of replacement households in the event that there are refusals, no-shows after repeated visits to the households, poor quality interviews, etc.

The procedures for selecting a random sample are explained in Section 7.1 on 'How to conduct a random sample of households.'

3.14 Organogramme for Component 2, Domain 1, CIFOR



### **3.15 Products**

There are three broad categories of products to be produced by Component 2: 1) methods for research on REDD+ project sites; 2) evaluation research on the attainment of the 3Es and co-benefits by REDD+ project sites; and 3) general public goods information on REDD+ project sites.

#### ***3.15.1 Methods for research on REDD+ projects***

At the time of writing (November 2010) Component 2 has produced various writings on methods for research on REDD+ project and background on REDD+ project sites. The main, culminating product will be 'A Guide to learning about the livelihood impacts of REDD+ projects', due to be published and launched in December 2010. Methods development has also involved the writing of these guidelines, as well as the research instruments, instructions and code book to be used in the evaluation research. Early methods development has focused on the socio-economic dimension of REDD+. As part of this, a Survey of Project Implementation is currently under development and will be ready for implementation in early 2011. Methods development for research on the biophysical effectiveness of REDD+ project sites (work to be done by Components 2 and 3) has begun. A GCS-REDD+ consultancy report by Martin Herold and Erika Romijn (2010) proposes a strategy for this research.

#### ***3.15.2 Evaluation research on the attainment of the 3Es and co-benefits***

Products related to the evaluation will be in two phases: the early outcomes related to the establishment of REDD+ project sites; and the later outcomes related to the impact of the introduction of project incentives.

Products related to the early outcomes will devote attention to the following themes: local permission for REDD+, involvement by local people in the conceptualisation and implementation of REDD+, and knowledge of REDD+; pre-existing tenure arrangements; and gender in relation to the establishment of REDD+. The products will be in two broad groupings: scientific articles and reports; and reports made specifically for villager respondents and for project proponents.

Products related to the later outcomes will be squarely focused on answered the research questions and testing the hypotheses of the research (see Section 3.4). Among the products will be:

- A synthesis document on all of the key findings
- Thematic articles related to specific questions and hypotheses
- Various products differentiated by region, country and project site
- And as above reports targeted specifically at respondent villagers and proponents.

### **3.15.3 General public goods information**

Component 2 will produce a website with information on REDD+ project sites. The focus of the website will be the nine countries of GCS-REDD+. There will be greater detail (more variables for each project) in the five Component 2 countries. This data set will include the majority of REDD+ project sites in the world, as Brazil and Indonesia together have more than half of the world's sites.

## **3.16 Approach to attaining impact**

The ultimate objective of this research project is to improve the implementation of REDD+ at second generation (post-2012) project sites through an assessment of whether, and how the first generation sites have or have not attained the 3Es and co-benefits. As such the primary target audience and focus for impact is the key stakeholders involved in establishing REDD+. This includes:

- Governments involved in implementing REDD+ (e.g. Norway as a donor or Indonesia as a direct implementer)
- Multilateral and bilateral donor organisations involved in funding and setting up REDD+ (e.g. the World Bank, UN-REDD and Norad)
- Large organisations initiating and/or implementing REDD+ (e.g. large conservation NGOs such as TNC and WWF)
- NGOs involved in monitoring REDD+
- Third-party monitors of social and environmental safeguards (e.g. CCBA)
- Populations involved in giving permission to and implementing REDD+

A second audience is not a stakeholder directly involved in the establishment and implementation of REDD+, but is nonetheless an important target group for impact and influence:

- The scientific community involved in the fields of climate change mitigation and forest and biodiversity conservation, among others
- Governments and policymakers concerned about climate change but not necessarily involved in REDD+
- Research respondents in control villages presumably not directly affected by REDD+

Impact will be achieved through all of the following approaches:

- In one main document, produce a careful and thorough analysis of both the process (early) and impact (later) outcomes, grounded in counterfactuals, with cogent and persuasive technical and policy recommendations.

- Work closely with Components 1, 3 and 4 to integrate results and to broadcast findings in the most efficient way possible.
- Synthesise the key findings into easily digestible briefs for policymakers that are well-targeted through mailings and culminating events.
- Produce in-depth articles and reports related to the subordinate questions and hypotheses.
- Conduct stakeholder events at the 2013 COP and Forest Day, as well as through other venues.
- Return the results to villager respondents and proponents to assure openness to ongoing research.
- Assure that CIFOR's 'Forests and Climate Change' web platform performs as designed for maximum dissemination of analysis and findings.

### 3.17 Implementation timetable for GCS-REDD+ , Component 2, June 2009 through June 2013

**Table 3 Implementation timetable for REDD+ project site research in five countries (intensive and extensive)**

<b>Activities</b>	<b>Year 1 2009-2010</b>	<b>Year 2 2010-2011</b>	<b>Year 3 2011-2012</b>	<b>Year 4 2012-2013</b>
Global database/typology of REDD+ projects	X			
'Before' preparation and research	X			
Guide for Learning About REDD+	X			
Data entry: 'before'	X	X		
Analysis/write-up of 'process' outcomes		X		
'After' preparation		X	X	
'After' research			X	X
Data entry: 'after'				X
Analysis/write-up of 'impact' outcomes				X



## 4 Research instruments and their uses

### 4.1 Overview

This section explains the instruments and the procedures for their use.

Sections 4.2 through 4.5 are introductory in character and provide the ‘big picture’ on how to use research instruments in Component 2. We examine the reliance on both primary and secondary data (4.2), the global database on REDD+ and why it is important for conceptualising the research design (4.3), the link between the research questions and the instruments used to answer them (4.4) and the use of the instruments at intensive and extensive sites (4.5).

Sections 4.6 through 4.17 concern the research instruments themselves. Each section will explain the purpose of the instrument, the procedure for use and parts of the instrument that require additional information beyond what is provided in the form itself.

### 4.2 Primary and secondary data

By the nature of what is being done in Component 2, there is a strong emphasis on producing primary data. Conducting research on REDD+ at the level of the project site will require primary data collection interviews with a wide range and large number of stakeholders, as well as biophysical measurements with GIS and remote sensing imagery.

Yet, secondary data will be important as well in two main ways. First, in the course of the first year, conceptualising the research has involved doing background desk studies on: the prospect for success in REDD+ when viewed against the backdrop of past efforts to stop deforestation and degradation (Sunderlin, W. and Stibniati, A. 2009); early lessons that can be drawn from the establishment of REDD+ projects around the world (Wertz-Kanounnikoff, S. and Kongphan-Apirak, M. 2009, Sills *et al.* 2009, Caplow *et al.* forthcoming); development of methods for primary research on REDD+ in the context of evaluation science (Jagger *et al.* 2009); and analysis of tenure in REDD+ (Sunderlin *et al.* 2009). In addition, Component 2 is creating a global database on REDD+ projects (see the following section).

### 4.3 Global REDD+ database and typology

Component 2 is creating a global database on REDD+ that will provide public access to information on REDD+ at CIFOR’s web platform on forests and climate change (<http://www.forestclimatechange.org>). In the course of the first year, data gathering efforts have focused on the six countries in the study; in subsequent years the database will expand to include a larger number of countries. Data in the database are based on public-access information at proponent websites and also on survey interviews conducted with

proponents. Some of the data obtained are intended for public dissemination. Some are confidential. The survey forms used for interviewing the proponents are Annexes 3 and 4.

In addition to providing public goods information on REDD+ projects, the database has served as the basis for creating a typology of REDD+. In compiling information on REDD+ projects we have been able to specify a technical definition of REDD+ projects (see Section 3.5).

#### **4.4 Questions, indicators and instruments**

The research instruments are the main means for gathering the data that will answer the questions and test the hypotheses explained in Section 3.4. Table 4 lists the second-order research questions, the outcome criteria, key indicators and the instruments that will be used for answering the research questions.

**Table 4 Component 2 research questions, key indicators and corresponding instruments**

<b>Second-order research question</b>	<b>Outcome criteria focus</b>	<b>Key indicators</b>	<b>Corresponding research instruments</b>
1. To what extent did the REDD+ intervention reduce forest-based emissions and increase removals?	Effectiveness	Land cover change Drivers of D and D, A and R Carbon reference levels	Remote sensing/GIS Site narrative Reference levels and MRV Proponent appraisal; HH, village, women's surveys
2. How are the benefits and costs of the REDD+ intervention distributed across different groups of stakeholders?	Efficiency and equity	Project benefits and costs	Implementer survey Proponent appraisal; HH, village, women's surveys
3. Is effectiveness of a REDD+ intervention achieved at a level of cost (transaction, opportunity) that can be justified?	Efficiency → effectiveness	Project benefits and costs [Effectiveness indicators above]	Proponent appraisal Implementer survey [Effectiveness instruments above]
4. To what extent is REDD+ effectiveness a function of fairness in benefit sharing arrangements among the stakeholders?	Equity → effectiveness	Project benefits and costs; Knowledge of and participation in REDD+; perception of wellbeing [Effectiveness indicators]	HH, village, gender surveys; proponent appraisal; implementer survey [Effectiveness instruments]
5. What impact did the REDD+ intervention have on community- and household-level wellbeing?	Co-benefits (wellbeing)	Village development (infrastructure, services, health, education) Actual wellbeing (assets, income) change Perceived wellbeing change	Proponent appraisal and implementer survey HH, village, women's surveys
6. To what extent is REDD+ effectiveness a function of the degree to which the intervention has supported community- and household-level wellbeing?	Co-benefits (wellbeing) → effectiveness	[Wellbeing indicators] [Effectiveness indicators]	[Wellbeing instruments] [Effectiveness instruments]
7. What impact did the REDD+ intervention have on the quality of local governance and on the security of rights to resources?	Co-benefits (governance)	Robustness of village institutions Tenure arrangements Perceived tenure security	Household, village and gender surveys
8. To what extent is REDD+ effectiveness a function of the degree to which the intervention has supported good local governance and the security of rights to resources?	Co-benefits (governance) → effectiveness	[Governance indicators]	[Governance instruments] [Effectiveness instruments]
9. What impact did the REDD+ intervention have on environmental co-benefits?	Co-benefits (conservation)	Perceived change in biodiversity, soil, water, etc.	Proponent appraisal Implementer survey HH, village, gender surveys
10. To what extent is REDD+ effectiveness a function of the degree to which the intervention has addressed environmental co-benefits?	Co-benefits (conservation) → effectiveness	[Conservation indicators]	[Conservation instruments] [Effectiveness instruments]

## 4.5 Use of instruments at intensive and extensive sites

Table 5 shows which instruments are used at the intensive and extensive project sites and explains why and how the uses differ between intensive and extensive sites.

**Table 5 Variation in use of C2 instruments at intensive and extensive sites**

Instrument		Intensive	Extensive	Comment
1	Land cover/carbon monitoring	Yes	Yes/no	At extensive site everything the same as at intensive site except no MRV capacity assessment and no LULUCF assessment of control villages
2	Site narrative	Yes	Yes	
3	Proponent appraisal	Yes	Yes	
4	Village appraisal	Yes	No	VA used to identify control villages and there will be no controls in extensive research
5	Scale of housing materials	Yes	No	There will be no household survey done at extensive sites
6	List and sample of households	Yes	No	There will be no household survey done at extensive sites
7	Household questionnaire	Yes	No	There will be no household survey done at extensive sites
8	Medium and large landholder questionnaire (Brazil only)	Yes	No	There will be no medium and large landholder survey done at extensive sites
9	Village mapping	Yes	Yes	
10	Village questionnaire	Yes	Yes	
11	Women's questionnaire	Yes	Yes	
12	Survey of Project Implementation	Yes	Yes/no	At the extensive sites, information on costs, perceptions and project implementation will be collected from proponent organisations and local government at the same time as other research instruments are applied. At the intensive sites, information will be collected from some additional sources, possibly in 2011.
13	Special tasks	Yes	Yes	

In summary, all instruments are to be used at the intensive sites. Most of the instruments are used at the extensive sites. There are four reasons for non-use of certain instruments at the extensive sites:

- Component 2 will assess the MRV capacity of intensive site proponents and some will be supported to attend a regional workshop to increase MRV capacity. This service is not being provided at extensive sites (see row 1).
- The research model is BACI at the intensive sites and just BA at extensive sites. This means there will be intervention villages but no control villages at extensive sites. Since the aim of the village appraisal is to identify candidate control villages, this instrument will not be used at extensive sites (see row 4).

- A household survey will be carried out at intensive sites but not at extensive sites (see rows 5 and 6).
- At the extensive sites, there will be restricted application of the implementer survey, because GCS researchers will spend less time at these sites and therefore are not expected to gather information on costs and perceptions from major stakeholders other than proponent organisations and the local government (see row 11). Further, GCS researchers will visit all intensive sites in 2011 to return research results and potentially continue the implementer survey, but these return visits will not necessarily take place in any or all extensive sites. This plan is contingent upon availability of sufficient funds and personnel.

## **4.6 Land cover and carbon monitoring**

The effectiveness of REDD+ will be measured in part through analysis of remote sensing/GIS data on land cover in both the project area as a whole and in the specific study villages. At the intensive sites, our intention is to assess land cover in both the 'before' and 'after' phases in both intervention and control villages. We will also measure change in net forest carbon emissions against reference levels.

The remote sensing/GIS data will come from various sources:

- Proponents that have imagery (raw or classified) that is reliable enough for use and that will have a longitudinal (before and after) dimension;
- Acquisition of imagery or classification of imagery in cases where proponent data are inadequate or unavailable;
- Acquisition and classification of imagery covering control sites in cases (probably all) where the proponents are not analysing land cover in our control villages.

The first step in analysing carbon emissions and removals will be an assessment of proponent MRV systems. Component 3 will conduct a survey of MRV capacity at all intensive sites in collaboration with Component 2. This means that someone from C3 and/or C2 will contact the person responsible for MRV in each proponent organisation by email and/or phone during the latter half of 2010. Following this survey, selected proponents will be invited to attend a regional workshop to improve MRV capacity. The goal of this workshop will be to help raise the MRV capacity of all proponents to a minimum standard of adequacy.

At a small number of intensive sites, Component 3 will be directly involved in measuring carbon emissions and removals against reference levels.

Note that the approach to land cover and carbon monitoring in Component 2 is under development and will be elaborated in the latter half of 2010.

## 4.7 Site narrative on the causes of forest cover change

### ***Purpose***

The effectiveness of REDD+ will be measured in part through monitoring of land cover change as above (see 4.6) and also through analysis of causes of forest cover change before and after the application of REDD+ incentives (intensive and extensive sites) and between control and intervention sites (intensive sites alone). A project site narrative will be written by Field Research Supervisors to begin the process of analysing the causes of forest cover change.

Ultimately the ability of REDD++ to be effective is based on the ability of the proponents to: a) correctly understand the drivers of deforestation and degradation at their site; b) put together an appropriate plan (structure of incentives to change the behaviour of stakeholders); and c) to properly implement this plan. The purpose of the brief report is to begin to assemble an analysis related to these three points.

### ***Procedure***

The narrative should be structured in four parts using the following headings (but abbreviate them please):

1. What are the drivers of deforestation and degradation at the site?
2. Does the proponent have an appropriate understanding of the drivers of deforestation and degradation at the site?
3. Does the proponent have an appropriate plan (structure of incentives to change the behaviour of stakeholders)?
4. Does the proponent have the capacity (financial, expertise, etc.) to implement this plan?

Information on No. 1 can be obtained by consulting the proponent's project document. Pay special attention to whether the proponent's perception of the drivers is well attuned to local circumstances and whether it is up to date. If you perceive deficiencies, make notes on what you believe to be the key drivers, how they interact and how they affect forests (No. 2). Be attentive to the fact that in almost all cases there are forces that simultaneously decrease the area of forests. If there is no project document, you might want to interview the proponent or others who are knowledgeable about the dynamics of local forest cover.

Information on No. 3 will also be obtained from the project document or through an interview with the proponent. Ask yourself if the measures and incentives planned are well matched to all the relevant drivers and potentially sufficient to produce the desired outcome.

Information related to No. 4 is an exercise in forecasting and will be subjective. If the proponent has a good plan, does it appear that they have the means (financial,

organisational, etc.) and the capability (knowledge, expertise, human capital, good relations with the community, etc.) to produce the outcomes they intend?

This report is for internal use and is mainly for the purpose of preparing the ground for future, more sophisticated analysis. The site narrative is rudimentary in the sense that it involves some gazing into the crystal ball: guessing what the future might be like in the performance of this REDD+ project site. The aim is not to produce a publishable document, but instead to have some raw material for use later on.

## **4.8 Proponent appraisal**

### ***Purpose***

The purpose of the proponent appraisal is to:

- Serve as an initial reconnaissance exercise to plan the rest of the research at a specific project site.
- Identify the other stakeholders who should be interviewed.
- Identify which elements of the project are still in the design phase, which are underway and which are completed.
- Collect basic information on the project and project site which cannot be collected from secondary sources or over the phone.
- Collect village information to enable the selection of a sample of villages for CIFOR's research.

### ***Procedure***

- The secondary data collection for the Proponent Appraisal can be started as soon as the project site has been selected.
- Before going to the field, secondary sources should be consulted and email communication with the proponent should be established.
- The interviewing for the Proponent Appraisal will be carried out at the start of the pre-testing stage in the intensive sites and in the early part of the survey phase in the extensive sites. In both cases this will be before study villages have been selected.
- It will not be repeated in the rest of the research process but will be followed up by 'implementer' surveys with a range of organisations relevant to the implementation of the project.
- The main 'respondent' will be someone in the regional/local office of the key proponent who has decision making and oversight authority over the REDD+ project. The interviewer should at all costs find the best project representative to respond.

- In addition, the MRV person for the project must be consulted in order to obtain accurate information on carbon reference levels and MRV.
- The person responsible for the socio-economic baselines should also be consulted.
- These individuals are not always at the project site so it is advisable to contact them well in advance of the interview to check their plans and if necessary to arrange to interview them elsewhere.
- In some situations the proponent (organisation with official responsibility for the REDD+ project) is different from the initiator. In this case the form is to be addressed to the organisation/people who know most about the project site in question.

### ***Aspects requiring special attention***

Detailed 'Instructions for the Proponent Appraisal Form' are in Annex 5 of these technical guidelines. These instructions should be read thoroughly prior to undertaking the proponent appraisal. The instructions are a continuation of the information above.

The topics addressed include: the data collection process; clarification on what is and is not the project site—an essential step before beginning the interview; the interview and encoding processes; instructions on how to reference sources of information; instructions on how to do Exercise 20 (determination of project zones) and Exercise 27 (project implementation at the village level).

## **4.9 Village appraisal**

### ***Purpose***

The purpose of the Village Appraisal Form is to gather village-level data that will help guide selection of intervention and control villages for the BACI analysis at the intensive research sites. Village Selection Variables (VSVs) (one for each question in the form) will serve as the basis for identifying intervention and control villages that are similar to each other. The more similar they are to each other, the greater our assurance that differences between intervention and control villages in the 'before' and 'after' periods are attributable to REDD+ and not something else. The use of the Village Appraisal Form is closely linked to the use of Exercise 27 in the Proponent Appraisal Form.

### ***Procedure***

There are two stages of data collection for the village appraisal. In the first phase, secondary data related to the 22 village selection variables are collected before going to the field. The reason is that some of these data are only available as secondary data and will not be known in the villages themselves. In the second phase, the data gathering process is completed in the field, during the initial visit to the project site, at the time the proponent appraisal is done.



### ***Aspects requiring special attention***

Detailed 'Instructions for the Village Appraisal Form' are in Annex 1 of these technical guidelines. These instructions should be read thoroughly prior to undertaking the village appraisal. The instructions are a continuation of the information above.

The topics in the instructions include: the challenges in identifying candidate villages; the process for selecting candidate intervention villages; the process for selecting candidate control villages; getting started before going to the field; and the size and number of villages.

## **4.10 Scale of housing materials**

### ***Purpose***

The scale of housing materials is a form used to determine a village-specific scale of the values (low, medium or high) of materials used in the construction of houses in the village (see Annex 6). The specific purpose of this scale is to serve as the source of codes for answering Table 2C in the household survey questionnaire. The information obtained in Table 2C will serve as one of various indicators of the relative wellbeing of households in the village.

### ***Instructions***

- Upon arrival in the village take a walk around and observe the houses and the main materials used for the floors, outer walls and roofs.
- Make a preliminary list of the various main materials used for the floors, outer walls and roofs and classify these into low, medium and high values.
- Table 6 below can serve as a general guideline for classification. Note that: the **low** value will generally mean no or low value added (e.g. a dirt floor) or local biotic materials (e.g. a thatched roof); the **medium** value will generally mean local materials with some value added (e.g. locally sawn and processed boards); and **high** value will generally mean non-local materials with higher value added (e.g. ceramic tiles for the floor, brick walls and a ceramic tile or metal roof).
- Produce a scale that makes sense to you. Do not follow the model below slavishly. For example ceramic tiles and bricks might be made in the village, in which case you will have to decide where those materials fit best on a relative scale of value.
- Verify your assumptions by talking with one or two key informants. If you are doing the village survey before the household survey, you can verify your assumptions in that meeting.
- Once your assumptions have been verified, fill in the scale of housing materials form and use it as the source of codes for answering Table 2C in the household survey.

**Table 6 Classification guideline for housing materials by scale**

	<b>Low</b>	<b>Medium</b>	<b>High</b>
<b>Floors</b>	No/little value added: e.g. dirt	Local materials Medium value added: e.g. local wood boards	Non-local material High value added: e.g. ceramic tiles
<b>Walls</b>	Local biotic materials No/little value added: e.g. leaves, poles, bamboo	Local materials Medium value added e.g. local wood boards	Non-local material High value added: e.g. masonry
<b>Roof</b>	Local biotic materials No/little value added: e.g. thatch	Local materials Medium value added: e.g. local boards or wood tiles	Non-local material High value added: e.g. metal, ceramic tiles

## 4.11 Obtaining or creating a list of village households

### *Purpose*

Before undertaking the household survey, it is important to acquire or compose a list of all the heads of household currently living in the target village (or subvillage, as the case may be). This will serve as the sample frame for the random selection of households.

### *Procedure*

The sources of such a list might be the village chief, a district office, or possibly the proponent organisations—particularly in cases where the organisation may have done a census, or perhaps even a household survey as part of its work.

It is vitally important that this list be accurate and up to date. If a list is incomplete or out of date, this risks introducing bias into the sample selection. It is particularly important to avoid a situation where an ethnic minority residing in a village has not been recorded in the formal village list.

In the event that the existing lists are incomplete and or inaccurate, it might be necessary to compose an updated and accurate list by visiting households door-to-door. In the event this is necessary, the existing lists might be used as a point of departure so that you are not starting from scratch.

Once the list has been composed and you are confident that it is an accurate record of all households in the village, the next step is to conduct the random sample of households. The household selection process is described in Section 3.13 and procedures for conducting a random sample are in Section 7.1.

## 4.12 Household questionnaire

### *Purpose*

The household questionnaire is the only instrument in GCS-REDD+ for obtaining household-level data. It is our key means for getting in-depth knowledge at the intensive sites. It is our main entry point for getting socio-economic data in the BACI approach.

The main functions of the household questionnaire are to:

- Measure the potential effect of REDD+ on household wellbeing on the basis of objective metrics (livelihood, assets and income in the course of 12 months) and subjective metrics (perceived wellbeing status and the reasons for change for those who experience change).
- Measure of the potential effect of REDD+ on land and resource use at the level of the household.
- Household knowledge of and involvement in the process of establishing and implementing REDD+.

Successful implementation of the household questionnaire depends on a thorough understanding and mastery of the one-year and two-year recall method. See the instructions on the one-year and two-year recall method in Section 5.7.

### *Procedure*

The section that follows explains procedures for the implementation of the household questionnaire, section by section, focusing on aspects that might not be sufficiently clear from just reading the form. Some sections are not mentioned because it is assumed that no more explanation is required than that available in the form.

#### **Table 1A BASIC INFORMATION ON HOUSEHOLD MEMBERS**

When filling in this table be mindful of the definition of 'household' used in this study: 'A household is defined as a group of people (normally family members) living under the same roof and pooling resources (labour and income).' There are sometimes complex situations that make it difficult to know what constitutes a household. See the more detailed definition of household and examples of difficult cases in Section 8.1.

Begin this part of the interview by explaining to the respondents that:

1. Names will be written in this form to facilitate conducting the interview and for finding the household again in 2012, but will be kept completely confidential.
2. 'Livelihood' (columns 6 and 7) is defined by the most time spent on an activity and not amount of money.

3. 3. 'The last 12 months' is the 12-month period prior to the interview, not last year (2009). It is very important that the respondents understand this point so that we get reliable and complete information.

Note that we want to get information on primary and secondary livelihood activities (columns 6 and 7) for only those household members who are 16 years of age and older. The appropriate response for columns 6 and 7 for all household members younger than 16 years of age is – 8 = 'Does not apply (less than 16 years old).'

For household members 16 years and older who do not have a secondary livelihood, the code is -8 = 'Does not apply (no secondary occupation).'

Note that a livelihood based on plantation income should be classified according to the product. A farmer producing oil palm or rubber (with the exception of jungle rubber) should be classified as having an agricultural livelihood (codes 1-19 in the code book). A farmer producing timber in a timber plantation is considered as having a forestry livelihood (codes 40-59 in the code book).

In each of the natural resource livelihood categories in the code book (agriculture, animal husbandry, forestry, fisheries, mining and other natural resources) there are the following livelihoods types: own production, labour, household business owner, household business employee, larger-than-household business employee and service sector. Note that the categories 'household business owner, household business employee, larger-than-household business owner and larger-than-household business employee' all pertain to businesses owned, at least partly, by someone in the household. For example a daughter working as a non-owner employee in her father's small rice milling business would be classified as 'household business employee.' For example a daughter working as a clerk in her mother's department store (and the mother is a minority owner) would be classified as 'larger-than-household business employee.' If the household member is doing mainly physical labour in a business not owned by the household, then this would be classified as labour. If the household member is an employee doing service sector work in a business not owned by the household, this should be classified as 'service sector.'

We are asking a question about the days of illness of household members because health is an indicator of wellbeing. Poorer people tend to be ill more frequently than the non-poor. If someone is disabled and therefore not economically active, the number of days of illness is 365.

#### **Table 1 C INFORMATION ON HEAD OF HOUSEHOLD AND SPOUSE**

In asking how many years ago was this household first formed? (Q2) we want to know how many years the household has been in existence. Note that this is not necessarily the year when the head of household got married to the current spouse. It is possible that the head of household is a widow/widower who has remarried.

If the head of household has more than one spouse, choose 'other' and specify.

The question how many years has the household head lived in the village? (Q4) should be answered just the way it reads. The total should not include years lived outside the village. In other words if the head of household was born in the village, is now 40 years old and lived outside the village from age 10-20, the years lived in the village is 30, not 40.

#### **Table 2A AREAS OF HOUSEHOLD LAND ASSETS BY LAND USE CATEGORIES**

Table 2A classifies household lands by land use categories: agricultural lands specified in four subcategories; forest lands specified in four subcategories; and other lands (residential areas, infrastructure, shrubs, grasslands and wetlands). The categories are defined as follows (this list is also in the Code Book, Section 5):

Crops include annual and perennial crops.

Agroforestry is a combination of trees (fruit, timber, etc.) and crops, including home gardens.

Pasture includes both natural and planted pasture.

Silvopasture is the practice of combining forestry and grazing of domesticated animals in a mutually beneficial way.

Plantation forest is a forested area artificially established by planting or seeding, often with few species, straight tree lines and even-aged stands.

Early secondary forest is early secondary succession comprised of herbaceous, seedling and sapling vegetation < 5m high; typical of agricultural land left to fallow or non-managed pastures.

Intermediate secondary forest is a succession forest with woody vegetation 5-15m high.

Mature forest is old-growth forest or advanced secondary succession in which pioneer species have been largely replaced by late stage species.

Other = residential areas, infrastructure, shrubs, grasslands and wetlands.

Note that most of these land use categories are defined in greater detail in Sections 8.2, 8.3 and 8.4. These more elaborated definitions will be helpful in cases where there is a fine line distinguishing one category from the other.

In the lead-up to filling in Table 2A, read out loud carefully the four categories of household lands: 1) land controlled by and used by the household; 2) land controlled by but not used by the household; 3) land not controlled by the household but used privately by the

household; and 4) lands not controlled by the household but used in common with other households. The idea here is to get information on all lands related to the household that have definable boundaries. Lands used by the household that do not have definable boundaries (open access lands) are referred to in Table 3H on forest environmental income and 3I on non-forest environmental income.

In column 4, indicate whether the household does or does not have shared access to land in each of the nine land use categories listed.

Note that shared access lands include family lands (i.e. lands used jointly by an extended family) and also communal lands (i.e. lands used jointly by households that do not necessarily have a family bond).

Note that pawned land, that is, land transferred temporarily for use by another household, should be classified in the second category above: lands controlled but not used by the household. This will be the case even in situations where the title to the land has been (temporarily) transferred to another household as part of the arrangement.

## **Table 2B TENURE OF LAND BY CONTROL AND USE CATEGORIES AND LAND COVER TYPE**

Filling in Table 2B involves taking the information from Table 2A, specifying it at the level of agricultural lands and forest lands (note that in this table we do not include the 'other lands' category), and breaking it down into the actual parcels used.

We do not need to know the area of communal lands and that is why these blocks are shaded. We do not record this area because doing so would exaggerate the total land at the disposal of the household.

Note that in Table 2A household rubber lands should be classified according to the land use category they are in. Planted rubber should be classified as being on agricultural lands and should be listed in the crop land use category if it is a monoculture and under the agroforestry category if it is mixed agriculture and forest. Jungle rubber (i.e. not planted) should be classified under forest lands according to the stage of succession of the forest it is in (early secondary, intermediate secondary or mature).

Oil palm should be classified as being on agricultural crop land since it is normally a monoculture.

Column 3 asks for the area of the parcel of land. A parcel is defined as a contiguous piece of land. This is distinguished from a plot of land, which is a subunit of a parcel differentiated by use or type of crop.

## **Table 2C    CONDITION OF THE HOUSE**

A scale of values of housing materials will be made before beginning the household survey. This scale will be based on a thorough examination of the main materials used in the construction of the floors, outer walls and roofs of houses in the village. The local scale will be constructed by filling in the form called 'Scale of Housing Materials' (Annex 6). For more information on the purpose and procedures for filling in this form, see Section 4.10.

If the floors, outer walls, or roof of a house are made of a mix of different materials, assign the value (low, medium or high) to the one material that accounts for most of the total area of the floor, outer walls and roof.

## **Table 2D    ACCESS TO UTILITIES**

Question 1 on the source of water asks 'What is the main source of water used by this household?' This refers to use of water for the full range of household water-consuming activities such as bathing, washing, cleaning, cooking, drinking and use of a toilet. By 'main' we mean the largest source of water used by the household based on volume, not based on the importance of the final use. (For example we do not mean the main source of water for drinking, since for survival drinking water is a more pressing need than bathing.)

There may be ambiguous cases where the household uses a nearby stream for some uses (e.g. washing clothes) but uses a household well for all other uses (drinking, bathing, washing, etc.). It is not possible to compare the volume of water from a stream (continuous and potentially infinite) with the volume of water drawn from a well. In order to make the comparison meaningful, assume that uses of stream water should be made equivalent to uses within the house. For example if it is assumed it takes one bucket of water for an adult to bathe in the house, then the same amount of water is used when bathing in the stream, etc.

Question 3 asks whether the household has access to electricity and, if so, what kind. If the household has a generator shared among neighbouring households, classify this as '9 = other (specify).'

Question 5 on cooking technology asks:

If the household uses woody biomass fuel (codes 1-3 above ask)

Do you use a three-stone fire or an improved stove for your cooking?

Codes: 1 = three stone fire; 2 = improved stove; -8 (neither)

The reason for this question is that open fires (which we call 'three stone fires') are relatively wasteful of biomass fuels while improved stoves potentially use biomass fuels more efficiently and therefore reduce pressures on local forests. Some REDD+ projects are

introducing improved stoves as one of their strategies for protecting forests. Be aware of the fundamental differences between these two cooking technologies:

Here is a definition of the **three stone fire**, the most common type of open fire. The three stone fire gets its name from the use of three stones of the same height to balance a cooking pot over a fire. While it is one of the simplest and most inexpensive of cooking devices, it has various disadvantages which include:

- The burning wood or charcoal (or other fuel) is unshielded and uncontained so that the transfer of heat to the pot or pan is not efficient.
- There tends to be a lot of smoke produced, which is a health hazard in a confined space.

Be aware that 'three stones' is just a generic name and there are many variations on this basic theme. It could be made of five stones and not three. The pot might be balanced over two cinder blocks. The basic idea is that the combustion is fairly unprotected and there is likely to be smoke. The two photographs below show examples of three stone fires. Note also that if the open fire is outside, the smoke generated might be less of a health hazard than an improved stove in a confined space. But these are all still to be coded as 'three stone fires.'



Bylaw Stove, Northern Uganda  
Photo by Ahmed Hood, 27August 2008





Three-stone open fire stove in Burkina Faso; source: <http://www.hedon.info/cat237&deep=on>

The **improved cooking stove** is defined as a stove that needs far less biomass to cook the same amount of food than an open fire. Improved stoves burn biomass fuels far more efficiently than an open fire, sometimes reducing fuel consumption by 25 to 60%. An improved stove also tends to produce much less smoke than an open fire. Improved stoves are often introduced to reduce deforestation and indoor air pollution.

The characteristics of improved stoves can include:

- Containment and insulation of the combustion area to reduce heat loss and the effect of wind in order to maximise heat transfer to the pot and to the food being cooked
- A grate or some other means to supply air under the fuel. (Efficient combustion depends on an adequate supply of air reaching all the areas where the fuel is burning.)
- Many designs include a chimney that removes smoke from the cooking area.

The photographs below illustrate improved stoves.



Stuart Conway, Trees Water and People  
[www.treeswaterpeople.org](http://www.treeswaterpeople.org)



Lisa Feldmann, GTZ, from [www.hedon.info](http://www.hedon.info)

## Table 2E OTHER ASSETS OWNED BY HOUSEHOLD

In this table and in other tables where columns are shaded in grey, it is not necessary to calculate the total value when coding the interview or during the data entry process. The database will be configured so that total columns are calculated automatically to enhance efficiency and reduce error.

### Section 3 ON HOUSEHOLD INCOME

In this household survey, income is defined as production for household use, plus production for cash, net of expenses.

Note that this means we must monetise the value of household income in those cases where the cash value might not be known to the respondent. Here is an example based on Table 3H on forest environmental income in the last three months. Let's say that almost all villagers go to the forest to consume a particular type of fruit, but that fruit is never sold in the market. In this case you will know the units harvested (column 4), you will know the units sold (zero, in column 5), but you will not know the mean price per unit (column 6) and therefore you will not be able to come up with a gross income (column 7) or total value of the income (column 10). And yet we absolutely have to come up with a price for this home consumption good to come up with values for columns 7 and 10. What can be done?

The solution is to make approximations of the price based on farm-gate prices, barter values, substitutes, willingness to pay, distant market prices or value of time. The methods for doing this, based on the CIFOR PEN project, are in Annex 7 titled 'Valuation and pricing.'

#### **Tables 3A, 3B, 3C and 3D AGRICULTURAL PRODUCTION AND COST OF AGRICULTURAL PRODUCTION IN THE 12 MONTHS PRIOR TO THE INTERVIEW**

In this set of four tables we have two options:

- Agricultural production and the cost of that production can be presented as a whole, with the information for all 12 months in one set of tables (A and B) if it fits, or spilling over into the next set of tables (C and D) if space is required.
- Alternatively, if it is easier to record and calculate the information by season, the first set of tables (A and B) can be used for the first season and the second set of tables (C and D) can be used for the second season in the 12-month period.

Explain the option you have chosen under the headings for Tables A and C.

In Tables 3B and 3D on the costs of agricultural production, simply list the total costs of agricultural production in column 5 if that is simpler than breaking down the costs under columns 2, 3 and 4. Respondents sometimes know the annual costs well. In these cases it is not useful to break down the costs by quantity, units and price.

#### **Table 3E OWNERSHIP OF LIVESTOCK AND OTHER ANIMALS AND INCOME FROM SALES IN THE LAST 12 MONTHS**

The logic of this table is to record first the number of animals 12 months ago (column 2), subtract the deductions that have occurred during the year (columns 3, 4 and 5) and add the additions (columns 6 and 7) to arrive at the current number of animals.

Fill in all the columns except for those shaded in grey. Do not take a shortcut and fill in only the present number (column 8). The information in columns 1 through 7 provides us with information on net production in the course of the year.

Be sure to record information on adults only for types of animals marked with an asterisk (\*).

In some communities there are arrangements whereby a household can get ownership of an animal or a share of an animal (usually a young animal) in exchange for taking care of the adult animal(s) of another household. For that reason column 4 refers to the possibility of the household giving away an animal share and column 6 refers to the possibility of the household receiving an animal share. In the case where the responses involve a share and not the whole animal, use decimals.

**Table 3H INCOME FROM FOREST PRODUCTS IN THE LAST 12 MONTHS**

**Table 3I NON-FOREST ENVIRONMENTAL INCOME IN THE LAST 12 MONTHS**

These two tables together are meant to record all of the household's environmental income, which is defined as follows in accordance with the CIFOR PEN project:

Environmental income is income (cash or in-kind) obtained from the harvesting of resources provided through natural processes not requiring intensive management.

Examples are the gathering of fuel wood for cooking or heating, thatch as a roof material, or foods for home consumption. Household income products requiring a high level of management (e.g. agriculture and livestock) are recorded in Tables 3A through 3G and those requiring low or no management are recorded in Tables 3H and 3I.

Note that environmental income is often found in open access areas where boundaries are not well defined and where more than one household might make use of the same resource. But this is not always the case. For example firewood gathered on lands under the control of the respondent household, or on the lands of neighbours, should be classified as environmental income.

Table 3H records forest environmental income and Table 3I records non-forest environmental income. As the names suggest, forest environmental income is gathered from the forest and non-forest environmental income is gathered outside the forest. Note that the resource categories for both tables are exactly the same. The only difference is that the first occurs in the forest and the second does not. It is important to be mindful of the technical difference between forested and non-forested land. See the definition of forest in Section 8.2.

It is important to record accurately in column 2 the tenure of the land used for gathering environmental income. We will want to know how possible restrictions on open access

forest use in REDD+ projects affect the collection of environmental income outside the forest, for example in fallow areas.

Be aware that Tables 3H and 3I record all environmental income, both that which is for use in the household and that which is sold. The number of units harvested (column 4) encompasses both the amount for home use and the amount sold. The number of units sold (column 5) is a subset of this. We decided not to have a column for units used in the household and not sold, recognising this is simply the difference between the units harvested (column 4) and the units sold (column 5).

Note that animals can be classified as food (lines 15-18) or as wildlife (lines 24-27). The animal-as-food category is meant to encompass cases where animals are hunted, fished, or collected and eaten in the household, given, bartered, or sold for food. The wildlife category is meant to cover cases where animals are captured live and then sold live for use other than food (e.g. tropical fish to the aquarium market). If some animals are captured live and then sold live with the intention of being consumed as food, classify this as food and not wildlife.

### **Table 3J CHANGE IN FOREST COVER AND FOREST INCOME IN THE LAST TWO YEARS**

Question 5 asks ‘What type of forest did you clear?’ The options for answers are natural forest, managed forest, or plantation, at various levels of detail (see the code book for the details). Be mindful of the fact that, if possible, we want to know if the forest canopy is greater than or less 40% of the total land area. This is the boundary between closed and open forest in the FAO classification. If the respondent is unable to provide an answer at that level of detail, then simply specify whether the forest is natural, managed, or a plantation (codes 10, 20 and 30). For the definition of natural, managed and plantation forests see Section 8.2.

Question 6 asks ‘If secondary forest, what was the age of the forest?’ This is confusing because ‘secondary forest’ is not one of the possible answers to question 5. Moreover, we cannot deduce whether the forest cleared is primary or secondary from the answers to question number 5 (natural forest, managed forest, or plantation). A secondary forest could be either a natural or managed forest according to our definition of forest (see Section 8.2). So question 6 is actually two questions in one. The enumerator must first ask ‘Was the forest cleared primary (never cleared before) or secondary (cleared before)?’ Then it is possible to ask the question as phrased in the household questionnaire: ‘If secondary forest, what was the age of the forest?’

Question 10 reads ‘In the last two years, has the opportunity for villagers to clear forest land increased, stayed the same, or decreased?’

The use of the term ‘opportunity’ in questions 9, 10, 11 and 12 has a specific meaning that must be understood by enumerators. The dictionary definition of opportunity is ‘a favourable combination of circumstances.’ Our use of the term opportunity is consistent with that. However more specifically, we mean opportunity in the sense of an institutional context that allows villagers to clear forests. Possible examples are reduced competition from other villagers, absence of government restrictions, departure of a company that used to prohibit villagers from using forests, etc.

**Table 3K HOUSEHOLD BUSINESS INCOME IN THE LAST 12 MONTHS**

A household business is defined as an enterprise where income is produced through capital goods (machinery, equipment and inventory) owned by the household itself. Examples are: milling of grain for a fee using machinery owned by the household; spraying of crops for a fee with machinery and chemicals owned by the household; household production of furniture or handicrafts through use of equipment and materials owned by the household; operating a store (the household acquires the inventory and profits from the difference between the purchase and sale price); work as a plumber or electrician (assuming the tools are owned by the household, otherwise it might be wage labour); operating a taxi or public transportation service with a motorcycle, van or truck (provided the vehicle is owned by the household, otherwise it might be wage labour).

Table 3K is designed to record the net household income in the course of 12 months on the basis of recording the gross sales in the course of the year (line 3) and subtracting from this the total costs of operating the business (line 4) in the course of the year, for example inputs bought, hired labour, rentals, etc.

This table is designed to record the net income from all household business in the 12 months prior to the interview. If there are more than three household businesses, record the information in the margin or on a separate sheet of paper.

**Table 3L WAGE OR SALARY INCOME IN THE LAST 12 MONTHS**

A wage is earned when one’s labour or services are exchanged for cash or non-cash income (e.g. in the case of share-cropping). A salary is a fixed amount of money or compensation paid to an employee by an employer in return for work performed, typically on a periodic basis (e.g. by the week or month). Different from a household business (Table 3K), the wage or salary earner does not own the means of production.

Note that income from rubber cash cropping (where the trees are owned by another household and income to the household is in the form of a share of the rubber) should be recorded in this table. If the unit of the crop share is kilogramme, choose the code for ‘other’ in column 3 and specify ‘kilogramme.’

### **Table 3M MISCELLANEOUS INCOME IN THE LAST 12 MONTHS**

This table is intended to record any and all sources of household income that are not captured in the preceding tables. Ask the respondents if they can think of any sources of income that have not yet been discussed in the interview. It is important that the enumerator glance back at Table 1A to be sure that all primary and secondary livelihood activities have been accounted for in the interview. If this is not done, omission may require a return visit to the household to get this information.

Be aware that some household members will have tertiary income sources that are not recorded in Table 1A because they were not asked about.

### **4. PERCEPTIONS OF WELLBEING AND WELLBEING CHANGE IN LAST TWO YEARS**

The main aim of the series of questions under this heading is to understand the overall wellbeing status of the household at the time of the interview compared to two years before and the main reasons for change if change is experienced (better off or worse off).

Recognising that good and bad things can happen in the space of two years, we want to know the net direction of perceived change when all factors are taken into account. That is why use of the term ‘overall’ in the question is important.

In question 3, list all of the reasons for changed wellbeing stated by the respondents. They should not be listed in rank order. We are interested in having as much detail as possible in the response, so do not hesitate to use the space provided for text if the codes do not adequately describe the reasons for changed wellbeing.

### **5. HOUSEHOLD KNOWLEDGE OF AND INVOLVEMENT IN REDD+**

We emphasise what is stated in the instructions: ‘If the proponent organisation has requested that the questions in this section not be posed in villages within project boundaries, then these questions should not be posed. If this is the case, indicate here that the proponent has made this request by ticking the box: ☐.

Some proponents do not want these questions asked because they have not yet had an opportunity to consult with communities and lay the groundwork for the implementation of REDD+. In those cases, be sure to find out if proponent communications with the community will take place within the time frame of the fieldwork. If this is the case, see if it is possible to schedule the household survey after this work has been done.

Note that in this section we are asking questions about the REDD+ project associated to the village being visited, whether it be an intervention village or a control village. When assessing respondents’ knowledge of the particular REDD+ project, it is important to use the various names that the project might be known by (not just the ‘official’ name), including a reference to the project proponent as needed. In this way, respondents are given ample

opportunity to recognise the project in question. Be sure to phrase the name of the REDD+ project in such a way that the respondents understand clearly that you are referring specifically to the REDD+ project as a whole, not to one of its subcomponents or to other projects that may be associated with the REDD+ project but are not the same thing. For example, in Ketapang in West Kalimantan, Indonesia, there is an effort to reform forest tenure prior to implementing the REDD+ project. Make sure the respondents understand you are discussing the whole REDD+ project and not just this preliminary step.

This set of questions is to be posed both in intervention and control village households. Pay close attention to the instructions which specify how to proceed.

Questions 1-4 are screening questions to determine if the respondents have sufficient knowledge about REDD+ as a concept or project to be asked the subsequent questions. If they do not have sufficient knowledge, the interview is ended. Consistent with the guidelines of good field research practice, there must be absolutely no prompting of the codes (Section 5.6). If responses are given that do not fit within the available codes, write those in 'other.'

Questions 5-11 are intended only for intervention village respondents who have sufficient knowledge about REDD+. Questions 12-13 are for intervention village respondents who know about REDD+ as a concept but not know about the specific REDD+ project their village is a part of. Questions 12-13 are for control village respondents who show sufficient knowledge about REDD+ as a concept.

## **6. EVALUATION BY THE ENUMERATOR**

If the information obtained in the interview is judged to be poor (i.e. if Q2 = 1), it is possible the data from this interview cannot be used. If this happens consult the Field Research Supervisor for guidance.

### **4.13 Medium and large landholder questionnaire (Brazil only)**

#### ***Purpose***

At each intensive site, we will identify the stakeholder group that is likely to bear the greatest opportunity cost due to the REDD+ project: that is, the group likely to forego the most profits from 'business as usual' land use due to changes in land use induced by the REDD+ project. At many sites, this 'stakeholder group' includes just a few entities that manage large areas for highly profitable commercial uses (e.g., one or two timber or oil palm concessions). At several sites in Brazil, this group includes a substantial number of medium and large-scale commercial farmers/ranchers/loggers. At these Brazilian sites, there will be a survey of this stakeholder group.



## ***Procedure***

This survey is implemented only in the project area, for a random sample (possibly stratified) of medium and large landholders. Interviews should be conducted with the farm owner or manager (when the owner is absent).

### **1. BASIC INFORMATION ON HOUSEHOLD MEMBERS**

Questions 1-2 seek to clarify whether the respondent owns and/or manages the farm. If the respondent neither owns nor manages the farm, the interviewer is asked to first seek contact information for the owner or, if not available, for the manager and then ask the non-owner/non-manager block of questions (Questions 3-8). Generally, the preference is to reschedule the interview for a time when the owner or manager would be available to answer the rest of the survey questions.

Table 1A is filled in with the farm owner or manager, and the information relates specifically to the family of the respondent (i.e. a farm manager would give information about his/her family, and not about the farm owner's family).

For Questions 13-15, if there are more than three additional households living on the farm, the respondent is asked to provide information about the three most important households.

### **2. HOUSEHOLD LAND AND OTHER ASSETS**

Land assets: Since many medium and large landholders in Brazil own more than one property, the land asset questions in this section are designed to gather information about all properties (both used and rented) within and outside of the project area—including the sample farm. That said, in Table 2A only detailed land use information for properties within the project area should be included. Information on land use categories can be found in Section 4.12 of this document. In the medium and large landholder survey, scrubland or 'cerrado' is added as a specific land category in this survey, since it is present in the Brazilian states of Mato Grosso and southern Pará where there are REDD+ projects that target medium and large landholders.

Other assets: In Table 2B of the medium and large landholder survey, we only ask about major assets used for transportation and production (value > USD 500). Column two of this table is included to clarify where each asset is used (sample farm, other farms owned, or rented to others).

### **3. HOUSEHOLD INCOME**

Tables 3A, 3B, 3C, 3D, 3E and 3F of the medium and large landholder survey correspond to Tables 3A, 3B, 3E, 3F, 3G and 3H of the household survey. See Section 4.12 of this document for general instructions on these tables, but note that since the scale of medium and large

landholder production systems can be vast, in this survey we only ask about major crops, livestock and forestry products/inputs and do not pursue the same fine level of detail asked for in the household survey. In these tables, production information should be gathered for the sample farm only.

There are two additional columns in the livestock table (Table 3C) of the medium and large landholder survey. Columns 6b and 6c reflect the transfer of livestock between properties that needs to be included for the relationship between ‘Beginning number 12 months ago’ (column 2) and ‘End number now’ (column 8) to make sense. To focus on major products, small livestock, such as chickens, are not included in Table 3C. For the same reason, we do not ask about eggs and soap in Table 3D.

In Table 3F, specific forest products are removed from the table, since again we want to focus on only major timber, game, or other plant-products used by medium and large landholders. Since forest products collected by medium and large landholders may be limited, we included Question 2 as an open-ended question to get a sense of forest products that are collected for cash or subsistence purposes by households that live on the farm.

Tables 3Ga and 3Gb are unique to the medium and large landholder survey, with the information in 3Gb specific to land regulatory tools in the Brazilian Amazon. Again, these tables should relate to the sample farm only.

In Table 3H in the medium and large landholder survey; questions 1-8 are identical to those in Table 3J of the household survey. See Section 4.12 for instructions on these questions. These questions refer to change in forest cover on the sample farm only. Questions 9-10 ask about some of the benefits (e.g. timber sale) and costs (i.e. total costs of labour, machinery, etc.) associated with land clearing. Questions 11-13 address land left to regenerate and land reforested on both the sample farm and other properties within the project area, with Questions 11-12 asking for specific indication of area left to regenerate or reforested within the APP (Area of Permanent Preservation), which is again specific to the Brazilian context.

Table 3I of the medium and large landholder survey is similar to Table 3M of the household survey, but in this survey, business (net income) and wage income are included as line items in the table instead of as separate tables (as seen in Tables 3K and 3L of the household survey). There is also an additional line item in this survey that asks for income from other properties. This can include income (agricultural, livestock, forestry) from other properties both within and outside of the project area.

Table 3J is also unique to the medium and large landholder survey to get at other costs of production for the sample farm only.

#### **4. PERCEPTIONS OF WELLBEING AND WELLBEING CHANGE IN LAST TWO YEARS**

Section 4 of the medium and large landholder survey is similar to that of the household survey, with the exception that Question 1 of the household survey (income sufficiency) is not included in this survey. See Section 4.12 of this document for instructions on this Section.

#### **5. KNOWLEDGE OF AND INVOLVEMENT IN REDD+**

Section 5 of the medium and large landholder survey is identical to that of the household survey, with slight modifications in the wording to make the questions applicable to this stakeholder group. See Section 4.12 of this document for instructions on this Section.

#### **6. EVALUATION BY THE ENUMERATOR**

Section 6 of the medium and large landholder survey is identical to that of the household survey. See Section 4.12 of this document for instructions on this section.

### **4.14 Village mapping exercise**

#### ***Purpose***

The village mapping exercise is designed to get a rough spatial estimation of village boundaries, since in many cases, there is either no spatial data available for villages or village boundaries are undefined. This information will be used to link the C2 survey information to land cover change analyses in study villages through the use of satellite imagery. In cases where shapefiles are available for study villages, there is no need to conduct the village mapping exercise. The spatial data would simply need to be compiled to submit to C2 staff at CIFOR headquarters with the database. If there is no spatial information available for study villages, or if village boundaries are undefined, a brief village mapping exercise will be conducted, following the procedure below.

#### ***Procedure***

- Obtain a basic satellite map of the estimated village area based on available GPS coordinates from the village and/or recognisable landmarks (roads, rivers, mountains, etc.) to print and use during fieldwork. Label known villages, roads, rivers/lakes, mountains and other features that will help orientate the respondent(s) to the map view. A GIS Specialist at CIFOR headquarters will help create the base maps to be used in this exercise using GPS points from marked locations in the study villages and any available maps provided by FRSs.
- Identify a small group of key informants (1-3) in the village to participate in the mapping exercise. These should be people who know the entire village well and may even have some previous experience with mapping activities.

- Orientate the key informant(s) to the printed satellite image and ask them to draw estimated village boundaries on the map with a marker. If they are not able to draw a full boundary, at a minimum, the idea is that they indicate a few known village limits (e.g. a stream that separates one village from another, or a large pasture that represents the beginning of a large, neighbouring landholder's property, etc.)

#### ***Aspects requiring special attention***

- During fieldwork: Mark GPS coordinates at 'corners' of village boundaries that can be easily visited (e.g. a corner along a road or river that is travelled to/from the village).
- Post-fieldwork: The satellite map will need to be imported into ArcGIS and using the hand drawn map as a guide; a shapefile of the estimated village boundary can be created.

## **4.15 Village questionnaire**

### ***Purpose***

The village questionnaire is the main means for obtaining data about intervention and control villages at intensive project sites and about intervention villages at extensive project sites.

Sections 1-5 are to be filled out from secondary sources or through consultation with village officials and key informants. These sections are:

1. Basic information on demography, settlement and infrastructure;
2. Village institutions and forest use regulations and rules;
3. Wages and prices;
4. Development projects / income to the village; and
5. Village land tenure and use.

Sections 6-10 are filled out on the basis of a village meeting. These sections are:

6. Basic information on livelihoods in the village and change over time;
7. Change in forest area, quality and use;
8. Views on tenure security over agricultural and forest resources;
9. Perceptions on changes in wellbeing; and
10. Village knowledge and involvement in REDD+.

Note that Table 6, column 2 should be filled in before the meeting takes place.

## **Procedure**

Sources of information for before the village meeting (Sections 1-5, column 2 of table in 6):

1. *Secondary data:* Some villages may have good records of population (time series), access to public services, land categories etc. that should be used in filling in the questionnaire.
2. *Village officials:* In cases where reliable written records are not available, village officials may have some of the factual information needed. Warning: Don't rely (only) on the official version for answering questions involving some assessment—it may give a biased and 'polished' view of the state of affairs.
3. *Key informants:* In most villages, you will be able to find people who have a good overview of the situation and can be very useful in providing input. Again, cross checking information gleaned from these key informants is vital as there is always a degree of subjectivity and uncertainty involved.
4. *Own observation/measurement:* Some information can be obtained by the FRS or enumerator's own observations or measurements (e.g. 'distance to the nearest road usable by cars during all seasons'). One may also use a GPS to measure distances.

## **ORGANISATION OF AND FACILITATION DURING THE VILLAGE MEETING (SECTION 6-10)**

A village or focus group meeting can be organised in different ways, but for the C2 research, the village meeting should consist of 10-15 adults (>16 years of age). In many countries it is expected that you to go through the village leadership when organising such meetings. Not doing so can be seen as both impolite and possibly also a direct violation of the rules and regulations and can obstruct the research. That said, you should also be aware that a village leader may select an unrepresentative group. You should therefore stress to the village leadership that you would like to have a diverse group (men and women, young and old, rich and poor, immigrants and long time residents, etc.).

The FRS should be present during village meetings and be responsible for facilitating the meeting and supervising an enumerator in filling in the village survey. These tasks cannot be delegated. This is unlike the household questionnaire where, after an initial training period, the enumerators will perform most of the data collection. The reason for the FRS's active role is that the information in the village survey requires a more critical assessment and judgement.

During the village meeting, have the list of questions ready and ask them in a systematic way. It may be helpful to have the different sets of questions presented on flip chart paper, which can be hung up and filled out as the FRS proceeds through the questions. Follow up on interesting leads, but don't get side-tracked. Fill in as much information as possible into the village questionnaire on the spot. One may provide a small snack/drink during the meeting, which should not last for more than two hours. If contradicting views and

information occur during the meetings, try to reach a consensus answer without letting only the loudest voices in the group determine that answer (e.g. in particularly controversial group decision making, a vote can sometimes be helpful to arrive at a consensus).

## **VILLAGE QUESTIONNAIRE SECTIONS 1-5**

It is recommended that Sections 1-5 are done at the beginning of the fieldwork (as planned). At the end of fieldwork, if necessary, you can go over the survey and check and correct answers based on what is learned during the fieldwork.

The FRS should review the definition of a village in the next section and consult the regional FRC if the concept is not clear in your setting.

For all questions that ask for 'Sources,' list sources of information including publication name and year, or name of personal correspondent. Make note of complete reference for use in village narrative. Accurate sources of information will be extremely important in writing up research results.

## **BASIC INFORMATION**

- *Village:* For some countries the term 'village' does not exist and 'community' or 'association' or something similar might be the preferred term to be used during the survey. For purposes of C2 research, a village is defined as the lowest administrative unit in an area, normally under the jurisdiction of a village leader/council. In some countries the village can be very large, several thousand households. If the 'villages' typically have more than 500-1000 households one should consider breaking it up into smaller units and sample one, or a few of them.
- *Village Administrative Centre:* The village administrative centre is the site in the village where most collective activities take place (e.g. meetings) and where most village infrastructure (e.g. school, health centre, etc.) is located.
- Codes for country and REDD+ project site will be provided in the code book.
- District is municipality where relevant.
- UTM coordinates for the village should be taken in the village administrative centre.

## **1. BASIC INFORMATION ON DEMOGRAPHY, SETTLEMENT AND INFRASTRUCTURE**

### **1A. REGIONAL/DISTRICT LEVEL INFORMATION**

- Q1: Rainfall information should be obtained for the district (or municipality). If not available at this scale, data should be obtained for the lowest administrative unit for which this information is available (or nearest meteorological station; with unit specified in the village narrative).
- Q2: If data are not available for 20 years, use a shorter time period (and specify in village narrative).
- Q3: GDP should be obtained for the region at the lowest administrative unit for which this information is available (with unit specified in the village narrative).

### **1B. DEMOGRAPHY AND SETTLEMENT AREA**

- Q4: Year of village establishment: year when village was formed in its present location. In some cases, people may have moved 'the village' from elsewhere, in which case, year of establishment refers to when the village was moved. If year of establishment is unknown, a proxy can be used (e.g. number of generations) and approximate village age can be estimated. In cases in which year of establishment is estimated from other data sources, the 'check if approximation' box should be marked.
- Qs 5 and 6: In cases where village boundaries are unknown, total land area and area of forest cover should be approximated from a simple mapping exercise in the community as explained in Section 4.13.
- Q7: Current population of the village should include those residents temporarily away for work (indicated in Q9).
- Qs 12 and 13: Exact figures are not expected for the in- and out-migration, but try to give a rough estimate. Sometimes it may be better to ask about proportions and then multiply with population to arrive at the answer.
- Q14: While the current list of codes includes 'pull factors,' or reasons why the specific village attracted migrants, other reasons may include 'push factors' (e.g. they are refugees from another village), meaning that they weren't necessarily attracted by the qualities of the village where they ended up.
- Q16: In cases where there is only one ethnic group, use '1.' The code for DNA (-8) is used when there is so much racial mixing in a village, and people are so heterogeneous, that it does not make sense to use '1' ethnic group.

## **C. INFRASTRUCTURE**

- Q18: An 'operational' health centre is one in which there is an active health care provider.
- Qs 20 and 22: An 'operational' school is one in which classes are actively being held.
- Q24: By this question we mean if it is possible for four-wheel vehicles to reach the village by road during the entire year (i.e. not roads inside the village only).
- Q26: By this question we mean if it is possible for boats (motorised or non-motorised) to reach the village by river during the entire year (i.e. not rivers navigable inside the village only).
- Q28: This question asks about the administrative centre of the village. This should be the true administrative centre of the village and not of the hamlet, if the research 'village' is actually a subunit or hamlet of a larger village.
- Q29: 'Regular' phone access means that villagers are able to make phone calls most days of the year via at least one of the phone types indicated in the codes.

## **2. VILLAGE INSTITUTIONS AND FOREST USE REGULATIONS AND RULES**

### **2A. VILLAGE INSTITUTIONS**

- Q1: Village decision-making bodies are village administration units that have power to make decisions. Up to five of the most important decision-making bodies in the village should be listed, but not in rank order. The most important decision-making body (to be circled) is that with the largest role in affecting the day-to-day lives and destiny of villagers. The following questions (Qs 2-11) are in reference to this most important decision-making body.
- Q8: The public in 'public review' of the budget refers specifically to people in the community, not the public at large.
- Q12: A formal financial institution is any institution in the village with a governing body and fixed interest rates. While this definition can include established village level microcredits, it would not include middlemen or loan sharks.
- Q13: Up to five of the most important financial institutions in the village should be listed, but not in rank order. The most important financial institution (to be circled) is that which has the largest role in advancing the economic wellbeing of villagers.



- Q14: In reference to this most important financial institution; an open-ended question to be coded later.
- Q15: Informal credit operations are highly heterogeneous with a wide variety of operators and services, including information, lending and borrowing using a wide variety of debt instruments. The common element which runs through all of them is their 'informality, adaptability and flexibility of options'. This reduces their transaction costs and gives them comparative advantage and economic rationale over formal finance. The 'informality' in informal finance is characterised by the following: 1) unregulated and non-subsidised; 2) Easy accessibility; 3) Loan availability in very small size and for short periods; 4) Low administrative and information costs; 5) Little or no collateral; 6) Flexible and variable interest rates (from very high to no interest); 7) Highly flexible transactions and repayments tailored to individual needs. (Source: <http://www.gdrc.org/icm/identi.html>)

## **Table 2B FOREST USE REGULATIONS AND RULES**

- In this section, we are not looking for a detailed accounting of forestry regulations, but rather a brief description of regulations and rules relevant to the specific village.
- In the boxes provided in the table, list a few key words related to the most important regulations and rules, along with the land tenure information in parentheses and asterisk(s) as needed. Example: Domestic use of timber. No state regulations required. Local rules permit only two trees/ha/year with request to village administration if more is needed (community)\*.
- While information on local rules can be gathered from village officials or key informants before the village meeting, this information should also be triangulated with residents during the village meeting (i.e. read out the list of local rules compiled and ask if anything is missing).
- Q5: Conversion of forest (e.g. rules for agricultural clearing, use of fire) includes fire use rules on agricultural lands to prevent spread into forests.

## **3. WAGES AND PRICES**

- Qs 1 and 3: In case of no seasonal variation (peak and slack season) in the wages and prices, one should just fill in the same figures in both rows.
- Q1: In some cases the wage may include some in-kind payment, typically food (either a free meal or some staple food to take home). The value of such in-kind payment should be converted into a monetary value (e.g. by asking how much the wage rate would hypothetically be if the meals were not included) and included in the wage rate reported. Thus the wage should be both in cash and in-kind.

- Q4: In some villages land sales may be prohibited or so uncommon that the land value cannot be estimated. Use then the code 'does not apply' (-8).
- Q4: The land value should be for land itself and should not include any extra work done (land improvements), trees planted, or the value of any buildings on the land.
- Q4: While low and high land values may reflect internal versus external buyers, the price range may also reflect differences within the same community.

#### **4. DEVELOPMENT PROJECTS / INCOME TO VILLAGE**

- Q1a: Forestry support includes that related to timber, NTFPs and environmental services from forests, forests, including community forestry and forest conservation initiatives, among others.
- Q1f and g: Education and health support can include salaries of teachers and nurses, as well as school and health supplies.
- Table 4: Payments refer to payments for incentivising land management practices or refraining from land uses (not payments for products). All cash and in-kind payments should be included. For column 4, 'amount in last 12 months,' the value of in-kind payments should be converted into a monetary value to include in the total amount reported.
- Codes for type of payment: 'compensation' includes payment for goods as well as environmental services.

#### **5. VILLAGE LAND TENURE AND USE**

- For detailed information on Section 5, see separate technical guidelines on tenure (Section 5.10 below).

#### **6. BASIC INFORMATION ON LIVELIHOODS IN THE VILLAGE AND CHANGE OVER TIME**

- Table 6: The information in column 2 should be gathered before the village meeting. Since we are asking for the approximate portion of households that engage in each livelihood activity, the total does not need to add up to 100% (in fact, it will likely be much greater than 100%, since many people are involved in more than one livelihood activity). If it is easier to collect this information during the village meeting instead of beforehand, a simple pebble-sorting activity may be very useful in getting villagers to estimate proportion of households involved in each activity. Also, for activities where there is an easy number of households to remember (e.g. number of teachers in village), the proportion can be calculated by dividing that number by the total number of households in the village.

## 7. CHANGE IN FOREST COVER AND USE

- Q1: Asking about change in the net area of forest cover allows for an overall picture of change in the village even though both deforestation and reforestation may have occurred within the village. Those differing processes will be illuminated in Table 7A.
- Table 7A: If deforestation and reforestation occurred within the same tenure type in the village, list that tenure type twice (in column 1) with differing type of change in column 2.
- Q3: Forest Quality: we mean the availability of goods and services of the forest related to density of woody material, forest health, and biological productivity and diversity.
- Q3: As in Q1, asking about change in forest quality allows for an overall picture of change in the village even though both degradation and enhanced forest quality may have occurred within the village. Those differing processes will be illuminated in Table 7B.
- Table 7B: If degradation and enhanced forest quality occurred within the same land tenure type in the village, list that tenure type twice (in column 1) with differing type of change in column 2.

## 7C. CHANGE IN LOCAL AGRICULTURAL PRACTICES

The aim of this set of questions is to understand the transition from swidden cultivation to permanent agriculture over time and how this is perceived by villagers. It is assumed by some observers that swidden cultivation is a major cause in the decline of forest quantity and quality, though in reality this depends a great deal on the form of swidden cultivation practiced and on population-resource pressures. Some observers assume that a transition to permanent (sometimes called sedentary) agriculture reduces pressures on forest, though this also is a controversial subject.

In this section swidden agriculture (sometimes called 'shifting cultivation') is defined as '... land that is cleared of woody vegetation for the temporary production of staple food crops mixed with other annuals and/or perennials useful for local use and/or markets.' (van Noordwijk *et al.* 2008;x)

In this section permanent agriculture (sometimes called 'sedentary agriculture') is defined as a 'Subsistence agriculture practised in the same place by a settled farmer'<sup>2</sup> Farming

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<sup>2</sup> This definition was adapted from AgricultureDictionary.com:

<http://www.agriculturedictionary.com/definition/sedentary-agriculture.html> (November 2010).

system in which the farmer remains settled in one place. It contrasts with shifting cultivation and nomadic pastoralism.’

## **8. VIEWS ON TENURE SECURITY OVER AGRICULTURAL AND FOREST RESOURCES**

- For detailed information on this section, see separate technical guidelines on tenure (Section 5.10 below).

## **9. PERCEPTIONS ON CHANGES IN WELLBEING**

### **A. COMMUNITY DEFINITION OF WELLBEING**

- Q1: This information should be collected in a brainstorming activity. If more than five reasons are given, only the five most important should be listed in the table (not in rank order).

### **B. PERCEPTIONS OF WELLBEING CHANGE IN THE LAST TWO YEARS**

- Table 9B: Again, a pebble-sorting activity could be used to get an estimate of the portions of households whose wellbeing has improved, stayed the same or worsened. Note, since all households in the village should fall into one of the four categories (improvement, same, worsening or unknown), make sure that the total of the low values in the portion ranges does not exceed 100% (e.g. 80-100% improvement, 0-20% same, 40-59% worsening and 0-20% unknown would not work since  $80+0+40+0=120$ ).

## **10. VILLAGE KNOWLEDGE OF AND INVOLVEMENT IN REDD+**

- In this section, use the term ‘REDD+’ or when translated whatever term is familiar to people in the place where you work.
- The local REDD+ project name should be inserted into the space (\_\_\_\_\_).
- Follow the decision rules in the questionnaire to proceed through this section.

## **4.16 Women’s questionnaire**

### ***Purpose***

The purpose of the women’s questionnaire is two-fold. First, it is an instrument that enables women to have a voice as respondents in this study. Second, it is a way to obtain data that are specific to the experience and knowledge of women. Third, it supplies information that compares the livelihood activities and outlooks of women and men.

The women's questionnaire is composed of four sections which are:

1. Women's livelihoods in the village and change over time;
2. Women's participation in village decisions;
3. Perception of changes in women's wellbeing; and
4. Women's knowledge of and involvement in REDD+.

## ***Procedure***

### ***Interview team***

The focus group interviews should be conducted by at least two people: one facilitator/interviewer and at least one assistant/note taker. One member of the team should be identified as the facilitator leading the exercise.

*The facilitator* will read the questions, call on respondents and moderate discussion as informants agree on responses to the questions.

*The assistants* will help to organise the group in the interview space, distribute materials, document the responses and take notes of discussions.

Ideally, this focus group should be conducted by a woman interviewer, but there is no reason to believe a man should not be able to do so if needed.

### ***Before the meeting***

The women's survey should be done as shortly after the village survey as possible. However, it should not be done simultaneously with the village survey or even, as we do not want to discourage women's participation in the village survey nor should it be held on the same day as it would be too tiring for women that participate in both meetings. Ideally it should be done the day after the village survey.

It is very important that the group be assembled with women, age 16 and older, who represent all (or the vast majority) of the different types of women's livelihoods in the village. Ideally a community leader should be able to assemble such a group. About ten people is an ideal size. With fewer, you risk not having enough community representation. With more, it is hard to get everyone to participate. Groups with more than 20 to 25 members become unmanageable for the facilitator and the meetings become unproductive.

Several of the tables require some preparation. Column 2 of table 1B should be filled in beforehand with the help of key informants if at all possible (as with the same question in the village survey). During the interview the estimates provide a starting point; however, participants should be asked if they agree with the estimates before filling in the remaining columns.

In Tables 1C2 and 1C3, column 1 you will need village land tenure codes from Section 7 of the village survey. Remember, it will be necessary to explain to participants specifically what areas in the community correspond to these codes. These should be referred to by their local names (see suggestions in technical guidelines on tenure).

It will also be necessary to prepare some flip charts and voting material (ballot slips and/or tokens) explained below.

### ***Interview location***

The interview should take place in a venue that is convenient to the residents. To encourage discussion and participation the interview team should establish a relaxed atmosphere conducive to the exchange of ideas. The participants should have comfortable places to sit and be away from other distractions (i.e. traffic, loud noise, competing meetings or events). In some cases it may be necessary to avoid venues that could intimidate some residents or discourage their participation.

### ***Running the meeting***

Facilitation skills will be important for the group interviews and it is necessary to plan an approach for carrying out the meeting. Some questions are likely to generate diverse opinions, debate and possibly conflicting views or argument. The facilitator will need to maintain control of the dialogue as a moderator assuring that informants stay on topic and that a few participants do not dominate the conversation.

Specific efforts may be required to assure all women present participate and to make sure that one or two women do not dominate the discussion. Stating specifically that you want to hear the opinions of all the women is a good way to reinforce that message. Once the meeting starts, be sure to call on all the informants to hear their responses, particularly the less talkative ones. However, be careful not to put people on the spot if they don't want to volunteer an answer. Note that the first question on time allocation could serve as an ice breaker, as it is a topic about which all women have something to contribute<sup>3</sup>.

At the outset it is useful to establish a few simple ground rules, for example:

- State that everyone has the right to express their opinion (but also they are under no obligation to respond).
- Explain that only one person at a time should speak and only after being recognised by the moderator.

Before the meeting, identify culturally appropriate ways to cut off speakers that are long winded, getting off topic or that are being disrespectful to others.

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<sup>3</sup> Do not worry if the total time estimated in the responses exceeds a normal work day. These are intended as rough estimates of time allocation (and besides several activities could take place simultaneously).

- Since many people will be focused on the World Cup, a method that works is for the moderator to carry a yellow and red card for flagging the 'offender'. Introducing the cards before the meeting in a light hearted way will let everyone know how the moderator will control the discussion.
- For unruly groups it may be necessary to use a 'talking stick', an item that gives a person the floor while held and that can be passed from speaker to speaker

When the group is assembled, you will have to explain why we are doing research on women. A statement such as the following should be helpful:

We know that women and men use resources differently, play different roles in their households and villages and are affected differently by changes in the village. Since the village surveys and household surveys are likely to be dominated by the participation of men, we want to make sure that we capture some of women's experience and ideas by talking specifically with a group of village women too.

Explain that you will be asking a series of questions, after which they will have a chance to discuss and agree to the answer. Also, explain that they should answer the questions, to the extent possible, in reference to all the women in the village, not just their own personal experiences.

Explain that you want to hear from all participants that are willing to express an opinion and that having a diversity of opinion is not a problem. However, because of the variety of opinions they will likely have to discuss some of the questions before agreeing on a response. Explain that for some questions you will use different methods so that everyone will have a chance to participate.

### ***Aspects requiring special attention***

Table 2A, column 4, asks about the actual activities of the women's organisation. The time frame for this question is any activities that might have been carried out in the 12 months prior to the interview.

## **4.17 Survey of Project Implementation**

### ***Purpose***

The Survey of Project Implementation (SPI) is a second and third year activity of the GCS-C2, aimed at a) characterising the project in terms of on-the-ground activities, b) estimating costs of project implementation to date and c) understanding the broader context of the project. These steps are essential for understanding project impacts (or lack thereof) identified through household and village surveys. The aim is to understand: what has produced those impacts (that is, what the project is in practice); the broader context for the

project as perceived by multiple stakeholders (in order to interpret different outcomes across sites; and the rough cost of the project (in order to assess efficiency).

### ***Procedure***

The SPI aims to track the process and politics of project implementation by identifying project activities that have taken place. This requires both determining which activities can be attributed to the project (e.g. deciding whether titling of land in the project area is part of the project, or a complementary activity that is a prerequisite for, but may have happened without, the project) and which activities have actually happened in practice, on the ground (and not just in written plans). Project proponents and other stakeholders will also be interviewed about their perceptions and the local opinions on REDD+. Researchers will take the opportunity to collect this information when they return to project sites to report on the first phase of research.

The SPI also aims to collect data on the costs of the project. The starting point for the cost exercise is to identify all organisations incurring significant costs for project implementation, both as part of the official project budget and in-kind. Each of these organisations is then queried for the total cost to date, the cost of implementation versus the amount spent on compensation, the form of cross-subsidisation which is occurring and the costs particular to study villages (where C2 surveys are conducted). Due to the challenges of accessing and collecting accurate data we have decided not to collect more detailed cost data across all sites but will focus attention on selected sites for a more in-depth analysis of how costs are allocated. The details of this research instrument are under development but this may include attention to aspects such as the cost of FPIC and MRV.

The SPI also lays the groundwork for the next phase of data collection ('after' project implementation) by identifying large-scale stakeholders who may bear opportunity costs of project implementation.

In the 'after' phase of research, the GCS will update information on project implementation and costs and, in addition, gather information on the opportunity costs imposed by the project on large-scale forest users, such as timber concession holders and large-scale ranchers. Identifying these opportunity costs in the broader project area provides important context for the estimated impacts of the project on villages and communities. Further, estimating opportunity costs in specific study villages (e.g. if any concession holders held rights to and intended to exploit resources or convert land in project villages) provides a more complete picture of the trade-offs across carbon and livelihoods in those villages. The starting point for understanding these opportunity costs will be Proponent Appraisal and SPI lists of large-scale forest users who were operating—or had legal rights to operate—in the project area as a whole and the study villages in particular prior to the start of the REDD+ project. The specific methodology for estimating opportunity costs will vary across sites,



depending on availability of secondary data, legal status of forest user and size of project area impacted.

### ***Aspects requiring special attention***

The details of this research instrument are under development. Interested readers are urged to consult a subsequent edition of these technical guidelines when they are posted at the CIFOR website in mid 2011.

## **4.18 Special tasks**

Field Research Supervisors are requested to conscientiously accomplish various tasks in the course of their field work, among which are the following.

*(1) Collect information in preparation for a final report in December*

(2) The Field Research Supervisors will produce a final report on the sites or sites they have researched. This is essentially an update of the site narrative on the causes of forest cover change (see Section 4.7). In the course of the field work, notes should be taken in anticipation of this task and should be recorded in the field notes (see next item). The broad outline of this final report is in Annex 8. *Field notes*

Field Research Supervisors are expected to bring a notebook to the field and to regularly make observations and analysis. The most important function of these notes is to record:

- Information and insights that relate strongly to our research questions and hypotheses (Section 3.4) and yet which will not be captured in the research instruments; and
- Information and insights that are important for understanding the socio-economic, institutional, or biophysical context of the project and that risk being overlooked because they were not anticipated in the questions and hypotheses.

Be aware that after the completion of the field research the Field Research Coordinator or others may ask to read these notes, so it is important that the notes be legible.

*(3) Photographs of land cover types in the village*

During fieldwork, Field Research Supervisors should take illustrative photographs of the major land use categories (i.e. crops; agroforestry; pasture; silvopasture; plantation; early secondary forest; intermediary secondary forest; and mature forest) as seen in each of the study villages. This information will be important in subsequent land cover classifications for use in analyses of land use land cover change and carbon emissions and reference levels.

*(4) Create scale of values on condition of the house*

Soon after arrival in the village, the Field Research Supervisor must take a walk around the village and take notes on the major materials used in the construction of village houses. This information will be used for creating a village-specific three-point scale of levels of wellbeing associated with housing materials. This scale is used as a source of codes for filling in Table 2C in the household questionnaire. Forms are supplied for accomplishing this task.

## 5 How to carry out the field research

### 5.1 Overview

In this section we explain the procedures for carrying out the fieldwork. We begin with the institutional aspects (Memorandum of Cooperation with proponents) which guide the implementation of the field research. We then cover topics relating to public posture and relations with respondents (Introducing oneself, CIFOR and GCS-REDD+; independence of the research; protecting the anonymity of respondents and confidentiality). From there we move to the more procedural aspects of carrying out the research.

### 5.2 Memorandum of Cooperation

The Memorandum of Cooperation (MOC) is a signed document that specifies the terms of the agreement between CIFOR and the proponent organisation. It governs what each party may and may not do as part of the work arrangement. For this reason it is important that Field Research Supervisors: have copies of the MOCs that pertain to the sites where they will be working; be thoroughly familiar with the terms of the MOC; and that this information be conveyed clearly to the enumerators conducting fieldwork at these sites. The template for the MOC is Annex 9 and the guidelines that accompany the MOC are Annex 10. (The guidelines essentially elaborate on points in the MOC concerning data sharing, confidentiality and independence and specify that accompaniment is not possible because of the provision related to CIFOR's independence.

The main provisions of the MOC concern the following topics:

- Partner review of CIFOR's research instruments;
- CIFOR requirement to keep partner informed of the progress of the research;
- Partner's right to review and comment on research findings prior to publication, though with neither party having a right to censorship;
- CIFOR's guarantee of anonymity of household and village respondents;
- Data sharing with partner within the constraints of confidentiality;
- CIFOR's obligation to obtain prior informed consent from respondents;
- Returning of results to communities (see clarification note below);
- Partner's provision of full information about project implementation, sharing carbon accounting and facilitating tracking and quantification of full project costs;
- Possible collaboration of the partner in the substance of the research;
- CIFOR's need and obligation to maintain its independence from the proponent;
- Non-interference of the partner with stakeholder; and
- Avoidance of research fatigue.

Some MOCs have provisions that go beyond those mentioned in the template. For that reason it is vital that the project-specific MOC be read.

The MOC says that CIFOR ‘tentatively plans to report back to {Partner} and study villages on this initial phase of research and to assess project implementation sometime in 2011’ and ‘CIFOR will collaborate with {Partner} to return research results to those local communities, including both an interim report and a final report after completion of the GCS.’ Please note that this does not constitute a promise that a CIFOR researcher will return in person to each study village in 2011. In some cases, this will make sense. In other cases, the CIFOR researcher may return to the project site, but only hold one meeting, inviting people from different villages to attend, or providing appropriate materials for project proponent to deliver back to the villages. This will be determined by CIFOR, in consultation with proponent, considering budget, researcher availability, travel costs to villages and opportunities to coordinate with other activities in the villages.

### **5.3 Introducing oneself, CIFOR and GCS-REDD+**

Field researchers in GCS-REDD+ Component 2 are, in a very real sense, ambassadors of CIFOR to the project proponent and to people who live in and near the project. It cannot be emphasised enough that courteous, respectful and considerate behaviour will be key to conducting the work well and to enabling the continuation of the research in the ‘after’ period in 2012 and 2013. Several aspects of the process of the introduction and public relations process are explained below, including: the introductory meeting; CIFOR, REDD+ and GCS-REDD+; what can be said about REDD+; independence, anonymity and confidentiality; permission from respondents; research and not development; and routine introductions.

#### ***The introductory meeting***

In every village researched there will be some kind of meeting to introduce ourselves as researchers, to explain what we plan to do and to ask for permission to conduct the research. In some contexts, a small meeting with the village chief or elders will be sufficient. In other contexts there will be a cultural requirement to have a larger meeting that includes not only the village chief and elders, but also most heads of household. The Field Research Supervisor is responsible for determining the appropriate meeting scale and for organising the meeting. In some cases it will be appropriate to supply food or other amenities as a gesture of good will.

#### ***CIFOR, REDD+ and GCS-REDD+***

Section 2 of these guidelines is designed to provide sufficient information on how to explain CIFOR, REDD+, GCS-REDD+ and Component 2. The Field Research Supervisors and enumerators should be thoroughly familiar with this information so that it can be used as needed.

Setting the tone of the relationship properly involves explaining clearly CIFOR's aim in conducting the research. Here is one way to present the information that can be adapted according to the context and prior level of knowledge.

'The Center for International Forestry Research (CIFOR) is an international research organisation headquartered in Bogor, Indonesia, that conducts independent research. Our aim is to produce knowledge that assists decision makers to improve policies, regulations and technologies related to forests. Ultimately, our aim is to have this knowledge help improve the lives of people who live in forested areas as well as to protect forests, the services they provide and biodiversity. We want to stress, however, that we are a research organisation and not a development organisation. (More on this is included below under 'Public good research.')

We are members of a CIFOR research project called the Global Comparative Study on REDD+, or GCS-REDD+ for short. This project is being conducted in six countries: Bolivia, Brazil, Cameroon, Tanzania, Indonesia and Vietnam. Our hope is that the knowledge produced from this research will assist in the implementation of REDD+ not just in these six countries, but in other countries as well.

### ***What can be said about REDD+?***

GCS-REDD+ essentially aims to study the problem of climate change, forests and how to enhance the role of forests in lessening the effects of climate change. As some of you may know, REDD (or REDD+) is a new approach to trying to protect and restore forests. By doing this research, we aim to know if REDD+ can fulfil its various goals: slow the destruction of forests, maintain and improve their carbon-sequestration potential, protect and improve the livelihoods of villager participants and provide other benefits including improved local governance and biodiversity protection. If there are challenges in meeting these goals, our research will attempt to propose some policy and technical solutions.'

It is a good idea to keep the explanation of climate change, REDD+ and the REDD+ project at a basic level. There are three reasons for this. First, in some cases the proponent will have done thorough public education on climate change, REDD+ and the project in advance so villagers will not need much information. Second, in other settings the REDD+ proponent will not yet have done much public education and might prefer that they themselves fulfil this role rather than CIFOR. Obviously, we cannot avoid talking about climate change, REDD+ and the project since we have to be open and honest about why we are there. But if the proponent asks that we not turn the introductory meeting into a seminar on climate change, REDD+ and the project, we should honour that request. Third, we should make an effort to avoid having our introductory meeting contaminate our measurement of the knowledge of REDD+ in the household, village and women's surveys. We want to know how much villagers have learned about REDD+ from sources other than ourselves, so obviously, it will help if we can keep the information on REDD+ in the introductory meeting quite basic.

### ***Independence, anonymity and confidentiality***

In the introductory meeting, as well as in the preparation for all survey interviews, it is important to stress CIFOR's independence and its obligation to guarantee anonymity and confidentiality. To the extent villagers understand and trust our independence, they will open up to us about problems encountered. Likewise, to the extent they understand and trust our guarantee of anonymity and confidentiality, they are likely to be more forthcoming with information. These topics are discussed in greater detail below.

### ***Permission from respondents***

It is important that a verbal request for permission to conduct the research be done in the introductory meeting and in all subsequent interviews in the village.

### ***Research and not development***

CIFOR researchers often have to deal with disappointment when it is understood that we conduct research only and that we are not a development organisation. Some villagers will ask, with solid justification: 'Why should we cooperate with your research project? What is in it for us?' Your answer can be: 'Our research benefits the project and the community in four ways. First, our findings will provide direct insights on what is going right in setting up and implementing REDD+, what is going wrong, why things are going wrong and how to make corrections. Second, we intend to produce a guide to best practices that will enable REDD+ project proponents to learn by doing. Third, our findings will ultimately influence REDD+ at the national and international technical and policy level, and this process will likely create an improved institutional and policy environment for REDD+ projects and associated communities to realise their goals. Fourth, our results will be communicated to villagers in REDD+ projects through brief reports so that they can benefit from our findings.'

### ***Routine introductions***

At the beginning of every interview in the villages, it is important to appropriately introduce oneself, CIFOR and GCS-REDD+. These introductions also serve as an occasion for us to: state that we intend to conduct an interview now (2010) and then two years later (2012); state that we will convey our findings to the village in 2011 and 2013; explain the guarantees of anonymity, confidentiality and independence from proponent; summarise the main topics of the interview; explain the 1- and 2-year recall method; and ask for consent to conduct the interview. This will be the routine protocol for beginning all village interviews. Note some of these tasks are repeated at the end of the interview. It is important that there be a widely shared and accurate understanding of why CIFOR is in the village and what we are doing.

## 5.4 Independence

It is important for field researchers to emphasise the point that CIFOR is in the village to conduct research independently. In practical terms this means that while we are there with the consent of the proponent organisation, and while we aim to be helpful to the proponent organisation, we are not in any way a part of the proponent organisation. The reason this is so important is because independence and impartiality help motivate respondents to share information more freely. Conversely, if CIFOR field researchers are misperceived as being an extension of the proponent organisation staff, there is a risk of distorting, or in the worst case of stopping the flow of research information.

Two examples will help illustrate the point. Example 1: At some REDD+ project sites the proponents aim to supply alternative livelihoods to area villagers. CIFOR survey questions about change in wellbeing in the two years prior to the interview might get a distorted response if respondents assume that part of the role of the CIFOR researcher is to supply livelihoods. Example 2: At some sites the proponents are in the role of restraining access to forests that may be part of the source of livelihood of villager respondents. If CIFOR field researchers are misperceived as part of the proponent staff, they will not get good answers to questions about villager forest use and management practices.

Because of CIFOR's independent role, no members of the proponent organisation may be present or even within earshot of any of the village interviews. This is a rigid rule and there will be no exceptions. All field research staff are expected to uphold and enforce this rule. This provision is explicitly stated in the guidelines that accompany the MOC (Annex 10), so members of the proponent staff ought to be aware of this provision. It is important to restate this provision with proponent staff at the beginning of the field research to avoid any possible misunderstandings.

## 5.5 Anonymity and confidentiality

Our **anonymity** policy means that we do not record the names of any of our village respondents in our GCS-REDD+ database and we make this known to the respondents. There is one exception. In the household survey we temporarily write in pencil the names of household members in Table 1A. This is so that in the course of doing the household survey we can refer back to specific individuals when asking questions about household member income (e.g. in Tables 3K, 3L and 3M). After the interview we erase these names from the form so they are no longer visible.

Our **confidentiality** policy is stated as follows in the guidelines that accompany the MOC (Annex 10): 'CIFOR will maintain confidentiality by guaranteeing the anonymity of all villager respondents (i.e. respondents to household, village and gender surveys, and the like). This is essential for: 1) assuring the safety and wellbeing of respondents; 2) assuring the free flow of information; and 3) assuring that CIFOR maintains its role as an independent research organisation.'

In practical terms guaranteeing confidentiality means:

- stripping all household identifiers from the data before sharing;
- stripping village identifiers if it is judged there is a need (see below); and
- members of proponent organisations and others who might inadvertently suppress open communication, are not allowed to be present in research interviews where villagers are respondents.

Under conditions of contestation or conflict where household respondents are especially vulnerable, CIFOR reserves the right to remove village identifiers from the data. Moreover, under conditions of unusual vulnerability, CIFOR reserves the right to withhold some portions of the data and findings (even stripped of household and village identifiers) if it is judged that doing so would harm the interests of household respondents.

Although guaranteeing confidentiality is a cornerstone of CIFOR's approach to research, this will not stand in the way of involving the Partner in the research in a variety of ways, e.g. through consultation on identification of candidate villages and on sampling procedures.'

The anonymity and confidentiality policies apply unconditionally to all villager respondents and selectively to proponent respondents. For example in the Proponent Appraisal Form and in the survey of project implementation forms we offer the respondents the option to have the responses to specific questions be confidential if they so choose. In practical terms this means that GCS-REDD+ can use these confidential data in aggregated form—that is, the confidential data are pooled together with responses from other proponents and not linked publicly with to the proponent respondent. As in the case of villager respondents, this practice protects respondents from any unwanted consequences and encourages disclosure.

## 5.6 Thirteen principles of good field research

The following eleven key principles will be followed faithfully in the course of the field research. Although some of these principles are stated elsewhere in the technical guidelines, they are repeated here so that the principles can be read as an integrated whole.

**1. Show courtesy and respect toward the respondents, as this is crucial to the success of the survey.** In order to assure that the villagers are willing to participate openly and fully in our survey, we must show them the utmost courtesy and respect. Always interact with them in a friendly way. Be punctual if you have set a time for an interview. Do not interrupt them in the course of conversation. Always close the interview by thanking the respondents for allowing you to have some of their valuable time.

**2. Be clear about the objectives of the research project.** Even though we will have preliminary meetings in each village to explain the objectives of the research, villagers will



ask about the aims of the project. They may ask how they themselves, or their village, will benefit from the research. Carefully explain the objectives of the research project (see Section 5.3 above) and be sure they understand this is a scientific project and not a development project. This means the benefits to them—if any—will be indirect and may not be realised for many years. The knowledge generated by the project will be used to improve national and international policies related to people and forests.

**3. Assure all respondents that the information they supply us will be kept in the strictest confidence.** Explain that when all the data have been collected from all the villages we are studying, the information will be analysed, summarised and written up in a way that is completely separated from the identity of the people who have supplied the information.

**4. Strive to assure that both the head of household and the spouse are respondents to the household interview.** If a village meeting is held to initiate the field research, announce that we want to interview the husband and wife, plus as many economically active household members as would like to attend. Men's and women's livelihood activities are frequently dissimilar, making it all the more important to have both the husband and the wife present. Except under unusual circumstances (e.g. large distance to get to the house), offer to come back at another time if both the husband and wife are not present at the first visit. This being said, it is important to bear in mind that adult children, and in some cases young children, can provide important information on the assets, activities and opinions of the household.

In cases where there is disagreement among family members on the right answer to a question, strive to seek consensus on the right answer. If there is an irresolvable disagreement between the head of household and the spouse with regard to a particular question, fill in -9 (= 'respondent does not know').

**5. Limit the interview to those who should be attending.** In order to assure the free flow of information, it is important to exclude from the interview anyone whose presence might make the respondents reluctant to be frank and open. This is key to our guarantee of anonymity and confidentiality. This means that no member of the proponent organisation may be present at any interview where villagers are present (e.g. in the household, village or women's surveys) (see Section 5.2 on the Memorandum of Cooperation and Section 5.5 on anonymity and confidentiality). The members of the proponent organisation should be reminded of this early on so that there are no awkward surprises. This should also be made known at the village meeting that initiates the field research (if such a meeting is held). In addition to excluding members of the proponent organisation from villager interviews, it is important to exclude anyone else whose presence might have an intimidating or silencing effect. Respondents are unlikely to be forthcoming about their income and assets if neighbours are either in the interview room or within earshot at the door. Respondents are unlikely to be revealing about their forest management practices if the forest guard attends the interview.

**6. Make sure the respondents are prepared to be interviewed.** Always be sure the respondent is ready, willing and able to spend time with you. There may be some cases where a respondent is unprepared for the interview. Some possible examples: the respondent is in the midst of doing farm work and is eager to return to the field; the family is about to have a meal; the respondent is in the midst of a spat with someone in the household; the respondent is inebriated. In such cases, offer to come back at another time. It is always preferable to delay the interview and do it well, rather than to do the interview 'on time' and get low quality responses.

**7. Pose all questions in a clear and consistent manner.** It is very important that all respondents interpret a given question in exactly the same way. In order to achieve clarity, it is vital that the enumerator understand the meaning and aim of all questions. If anything is unclear, do not hesitate to ask the field research supervisor for clarification. In order to achieve consistency, all questions must be posed in exactly the same manner. Read the question exactly as it is written in all cases. The questions to be read are in upright letters, whereas instructions to the enumerators and codes are written in italics, in most cases.

**8. All responses must be clearly written in the form.** All answers will be written in pencil. In the event of an error or correction, erase completely what must be changed and write over the erased area. If a response is written unclearly by the enumerator, the enumerator may be required to return to the household to get a clear response. It is very important that we minimise return visits because they waste time and can put a strain on the good will of the respondents. If you make an erasure and then write over it, be sure that the information can be interpreted in an unambiguous manner by the field research supervisor and encoder.

**9. Pose questions in a non-directive manner and avoid 'leading questions.'** When posing questions, always allow respondents to formulate their responses completely on their own with no guidance or suggestion on the part of the enumerator. 'Leading questions' are absolutely forbidden. Let us use an example to make this as clear as possible:

*Correct way to pose the question:* 'In the year prior to this interview what proportion of the land you cleared was cleared with the use of a chainsaw—all the land, most of the land, half the land, a small portion of the land, or none of the land?'

*Incorrect way to pose the question:* 'Am I correct in guessing that in the year prior to this interview, you cleared most of the land you have cleared with the use of a chainsaw?'

Note that a directive manner must be avoided not only by the enumerator, but also by all people present at the interview. If someone present at the interview who is not part of the household attempts to provide a response or to influence the response in any way, then that person should be told or reminded that the people allowed to answer the questions are only the members of the household themselves. Any answers supplied by people who are not members of the household are not valid answers.

Of course, there are legitimate situations where the enumerator will read out possible responses and the respondents are instructed to select one or more response. This is fine. It is not the same as asking a leading question. This is a method that closes (or partially closes) the options for responding and is applied systematically across all respondents. Such questions are clearly marked in the forms. Rule of thumb: If there are no explicit instructions to do so, never read out the possible coded responses.

**10. Every response in the survey forms must be filled in completely.** In cases where the question does not apply, use the code -8 for 'does not apply.' If the respondent does not know the answer, use -9 for 'respondent does not know.' If there is missing information, the enumerator will be asked to return to the respondent to complete the information. It is very important to minimise return visits because they waste time and can put a strain on the good will of the respondents.

**11. All questions must be asked, interpreted and recorded honestly.** Falsification of answers will not be tolerated. If falsification of answers is discovered, it will lead to termination of the contract of the enumerator. There will be periodic and random re-interviews of past respondents to assure that forms have been filled honestly.

**12. Show appreciation with a token of good will.** Beyond giving a sincere 'thank you,' there are various ways we can show our appreciation for the kindness and generosity shown by respondents in allowing us to interview them. Various kinds of gifts or tokens of appreciation can be given: consumables such as basic foods or sweets; or a bag with the CIFOR logo on it; etc. Offering to take a photo of the family and bringing it back on the return visit is probably not a good idea. We should only promise what we are absolutely sure we can deliver. In this project, as is customary in many field research projects, we provide no financial compensation for being interviewed. This can send the wrong message, giving the impression that being interviewed is a form of employment, causing envy, and creating a cycle of expectations that works to the detriment of future research efforts.

**13. All forms must be carefully reviewed and signed before being submitted to the field research supervisor.** The enumerators must carefully review each survey form after it has been completed. This will be done on the day of the interview itself, for two reasons: First, the enumerator's memory of the interview will be fresh so that unclear answers can be made clear correctly. Second, in the event the enumerator has to return to the respondent to clarify an answer, the context of the question will still be familiar and the enumerator will still be near to the house. When the enumerator is sure all questions have been answered completely and clearly, he or she must sign the front page of the form.

Once the enumerators have reviewed and signed the forms they are responsible for, these forms must be reviewed and signed by the Field Research Supervisor.

## 5.7 One- and two-year recall methods

In the household, village and women's surveys we are asking the respondents to recall information that applies across a one- or two-year period. Specifically, we are asking respondents to recall information in a period dating from exactly one year (12 months) prior to the date of the interview, or exactly two years (24 months) prior to the date of the interview. The logic of these time periods is straightforward. The one-year time period is a fairly customary frame of reference for social science surveys. The two-year period is dictated by our BACI method. We want to know what happened in the villages in the two-year period (2010-2012) between the 'before' research and the 'after' research. Since we want to ask many of the same questions in the 'before' and 'after' iterations, the two-year recall questions are posed in both the 'before' and the 'after' research.

Field research using the recall technique poses various challenges. It is often difficult for people to recall information about what happened last week, let alone a year or two years ago. Moreover, it is difficult to assure that the information provided fills out the full time frame (i.e. encompasses not just seven months but the full 12 months of the one-year period) and does not go beyond the specified time frame (i.e. encompasses just the 12 months and not, say, 16 months).

In using the recall method in the rural setting, we have two factors operating strongly in our favour. First, a year is a natural time unit (one revolution around the sun) that corresponds closely to agricultural cycles and the time of plantings and harvests. It helps tremendously to frame the time in terms of agricultural cycles, and the one- or two-year designations fit well with this. Second, respondents remember best what is most important to them. Farmer respondents tend to remember well how much they harvested one and two harvests ago because this is key to their economic survival and to household wellbeing. By contrast, respondents will have trouble remembering if it was cloudy or sunny a week ago, because in most cases this is not so important.

At the beginning of all villager interviews (household, village and women's surveys), the one- and two-year recall approach should be carefully described and discussed. Be especially careful to emphasise the following points.

- Emphasise that when we ask for information in the 12- or 24-month period directly prior to the date of the interview, we mean exactly that. For example if we are asking a one-year recall question and the date of the interview is 24 June 2010, then the period of recall is 24 June 2009 through 24 June 2010. The period of recall is not the calendar year 2009!
- Use time markers to frame the boundaries of the recall period. For example if there are exactly two rice harvests in the one-year recall period, ask the respondents to give information corresponding to the time period defined by these two harvests. If

a certain forest product is harvested only in month X, then use this as a memory aid to help define the reference period.

- Do not be overly concerned if the date of the interview falls in the middle of a harvest period and therefore potentially separates some respondents into the pre-harvest period and others into the post-harvest period. If we are looking strictly at the 12-month period prior to the interview, then this unevenness in the responses should average out.
- If the respondents are not agricultural households, or if the respondent agricultural household has difficulty framing a 24-month recall period, use 'event' time markers. Is there is something that happened 24 months ago in the village that everyone knows about and recalls—for example a drought, flood, forest fire, famine, death of an important figure, election, etc. If yes, then this kind of information can be used to help set the boundaries of the reference period.

Of course, for some respondents and in some circumstances, the one-year and two-year recall questions might not work well. If this is the case, do not press for answers that the respondents cannot deliver, or that might end up being wild guesses. The hallmark of appropriate implementation of the recall method is to fully enable the respondent to say 'I don't know' if that is the case. Throughout all survey forms, RDNK (Respondent does not know) is one of the answer options.

## **5.8 How to record responses in a group interview**

When conducting interviews in a group (e.g. the village and women's surveys), we want to record the overall sense of the group for all answers. In some settings, this will be relatively easy. The question is posed; the respondents discuss and deliberate among themselves; they come up with a consensual response (one that is agreed to by all people present); and the answer is recorded.

However in many (if not most) group interviews, one or two people tend to dominate the exchange between interviewer and interviewee. In those situations, the information obtained is not the sense of the group but instead the information and views of those one or two individuals. We must avoid a situation in which the data produced from a group interview does not represent the group.

How do we obtain answers that represent the sense of the group? Here are some techniques for getting more democratic results:

- Explain plainly, at the beginning of the meeting, that the aim of the interview is to obtain information that represents the whole group, or most of the group, and not just a few people.

- When responses are offered by someone, probe the group by asking: 'Is this a response that everyone can agree with?' 'If there are any alternative points of view or additional information, please speak up.'
- If there are people in the meeting who have not yet spoken up, encourage them to offer their views and opinions.
- If a question is controversial, do not simply record the view of the person who has voiced the strongest opinion. Encourage dialogue and see if there is a way to bridge differences to arrive at a consensus, or at least a majority opinion. If it is not possible to arrive at a sense of the group, indicate that this is the case in the form.
- In some cases, it might be useful to get the sense of the group by asking respondents to vote. A show of hands, yes or no, is one way to get the sense of the group.
- In cases where power dynamics are at play and it is difficult for some respondents to voice their disagreement openly, there are techniques for conducting a silent vote.

Even the most sophisticated techniques for measuring the sense of the group will not succeed in cases where the culture of the group is not democratic. This is frequently the case in mixed-gender interviews. Women are frequently reluctant to express themselves in such settings, even with overt encouragement. This is one reason why GCS-REDD+ is conducting the women's interview. To get the sense of the group from women, it is often best to have a women-only interview.

## **5.9 How to fill in the survey questionnaires**

### **5.9.1 General procedures**

All survey questionnaires must be filled out completely. If a question is not filled in properly, it may be assumed that the question was not posed to the respondent and a return visit may be required. Of course, this must be avoided if at all possible.

In some cases, a screening question will determine whether a subsequent question or questions should or should not be posed. In the event the subsequent questions should not be posed, the enumerator is usually prompted to fill in the code -8 (does not apply). In some cases the screening question determines whether an entire table of questions should or should not be posed (e.g. in the women's questionnaire, Tables 1C2 and 1C3). In these cases, if the screening question indicates the table is not relevant, there is no need to fill in the table.

Be aware of the following codes and abbreviations:

-8 means 'does not apply.' The abbreviation 'DNA' is often used in code lists.

-9 means 'respondent does not know.' The abbreviation 'RDNK' is often used in code lists.

The numeral 0 (zero) should never be used as a substitute for -8 (does not apply) or -9 (respondent does not know). The numeral 0 will either signify a quantity (e.g. 0 days of illness in the last 12 months (household questionnaire, Table 1A, column 8) or it can signify 'no' (in all survey forms there is frequent use of 1 signifying yes and 0 signifying no).

Do not fill in table columns or rows that are shaded in grey. The grey shade means that it is not necessary to get this information (e.g. the number of fish owned by the respondent) or it is a summary column that is best calculated automatically once the data have been entered.

Areas of land should always be in hectares and not in local land units.

### **5.9.2 Filling in the front page of the questionnaire**

There are standard procedures and codes for filling in the front page of all questionnaires.

Always fill in the country code and the REDD+ project site code numerically. The country codes and REDD+ project site codes are in the code book in Section 1 titled 'Questionnaire front page.' Note that the REDD+ project site codes should be filled in for control villages. Even though control villages are (in most cases) not within the boundaries of a REDD+ project site, they are associated with a particular project site in the matching process and that must be carefully indicated on the form.

The name of the district and village name must be written out. In the case that a subunit of a village is being researched, indicate both names in this format: [village name] / [subvillage name].

Indicate with a check mark, whether the site is an intervention village or a control village.

In the household questionnaire, the household code should be a numeral between 1 and the total number of households interviewed in a given village. There must be no gaps and there must be no overlaps in this series. This is very important because, from the point of view of the encoder (in the country of research and also in Indonesia), the complete set of numerals will tell us that all households interviewed have been accounted for. Make sure that enumerators working in the same village communicate with one another so that the numeration of the households is clear.

Use a GPS device to identify the location of the household (in the case of the household interview) and the location of the meeting place in the case of the village and women's survey interviews.

The information under 'Fulfilment of research tasks' must be filled out at every step of the sequence in the list. In the column headed 'By whom' mark the initials of the person doing the task and also the code number for that person. See code numbers for members of the

research staff in the code book. In the column headed 'Date,' write the date in the form 20/06/10 (for 20 June 2010).

## **5.10 Use of codes**

Coded responses to questions are listed either in a questionnaire (under a question, under a column heading, or in a row) or separately in the code book.

The code book has been made for use with the household, village and women's questionnaires. One reason to have a code book is so that the questionnaire forms will not be too long. Another reason is to provide a way for enumerators and encoders to see a question or table and the corresponding codes side by side. (We do not want a situation where the question is on one side of the page and the list of codes is on the other side of the page.)

It is important to pay attention to the instructions accompanying the list of codes. If the instructions say 'list all that apply,' then select all the codes that correspond to the answers given. If the instructions say 'list just one code,' then do just that.

If there is not a code in the list that corresponds to the answer given, then choose the code 'Other (specify) \_\_\_\_\_' and write the answer in the space provided.

If there is an answer that is given frequently at a research site and there is not yet a corresponding code, make this known to the Field Research Supervisor as soon as possible. The Data Analyst (based at CIFOR in Bogor) will be contacted and will provide a unique code for your use.

## **5.11 How to conduct research on tenure**

### ***5.11.1 Why study tenure?***

We want to know if land and forest rights change over time under REDD+ and, if so, who is losing and who is benefiting from those changes. This means we need to have a clear sense of rights, both before and after project implementation, as well as across intervention and control sites for comparison. REDD+ offers opportunities and risks regarding community tenure rights. On the one hand, communities may be given more secure rights and, on the other, they may lose them to more powerful interests.

Unlike simple uniform categories of public, private and communal lands, the communities that we will be looking at are likely to be mosaics of different types of tenure. The system for categorising tenure here will allow us to capture some but by no means all of this complexity.

In addition, even when we can specifically classify different types of tenure arrangements, these do not necessarily tell us how secure that tenure is. So we need to ask a variety of



questions to understand what conditions lead to each outcome, but as few as possible for logistical reasons.

### **5.11.2 How to study tenure: An introduction**

We will categorise tenure in three complementary ways. For different lands and forests in the village, we need to know 1) who the *de jure*, legal owner or manager is, 2) who uses the land or claims rights irrespective of legal status (actual *de facto* user) and 3) whether or not the land is managed or open access. These three aspects comprise a 3-digit coding system developed by CIFOR/ PEN. This idea is being used in GCS-REDD+, though some of the specific categories were changed to be more relevant for this study.

It is important to understand that this system of tenure classification looks at property rights through the statutory lens, or from the point of view of the state rather than the community. We have to choose between these two perspectives and we chose the former because there is much more documented information to draw on to fill in the data points in this system of classification. This is not the case with customary tenure, or tenure from the point of view of communities. Importantly, we are not doing this because we uphold the statutory perspective over the customary one, but instead because doing so allows us to classify information more clearly. More specifically, in cases of contested land use, if we classify, for example, particular forests as owned and controlled by the state yet the community sees it ancestrally as their own—this does not mean that we believe the state ought to be in statutory control of that land. It merely means that we are recording that the state controls it from the state point of view. In all cases of contestation, we will record that contestation without any prejudice as to ultimately who ought to own and control that piece of land.

Table 6 below, which is Table 1 from Section 5 of the village survey, is the most important table for establishing both the *de jure* and *de facto* tenure situation overall in the village. First, it establishes the legal or *de jure* basis of land rights, which may involve legal title or other kinds of legal agreements. These include three main categories—state, community and individual or private—and will be defined in detail below. The second category refers to the actual, or *de facto*, users of the land; that is, the entity or group or individual that is using it in practice. The third category refers to rule enforcement. All three digits should be recorded in both the household and village survey instruments. The three-digit coding system and a detailed explanation of how to fill in this table appear below. This table will be filled out in key informant interviews prior to the village focus group meeting.

**Table 6 Village survey table on village land tenure and use, Table 1 from Section 5**

TABLE 1. VILLAGE LAND TENURE AND USE								
1. Village land owner/manager by law <i>Digit 1 of tenure code</i>	2. Explanation <i>not part of 3-digit code</i>	3. Area approx. ha	4. % under forest cover	5. Type of agreement <i>Codes<sup>b</sup> below</i>	6. Length of agreement <i>Codes<sup>c</sup> below</i>	7. Actual user  <i>Digit 2 of tenure code</i>	8. Managed or open access?  <i>Digit 3 of tenure code</i>	9. Three-digit code <i>From columns 1, 7 and 8</i>
1. State <i>code 1</i>	1a. State lands, legally ‘unclaimed’, unassigned according to state, including unrecognised customary claims	1	2	3	4	5	6	7
						8	9	10
						11	12	13
	1b. Assigned to village (weak agreement)							
	1c. Assigned to individuals, households or private entity (weak agreement)							
2. Community <i>code 2</i>	2a. Titled lands							
	2b. Recognised formal owner/manager without title (strong agreement)							
3. Individual, household or private <i>code 3</i>	3a. Titled lands							
	3b. Recognised formal owner/manager without title (strong agreement)							
4. Total area <sup>a</sup>								

a. Total area should agree with area reported in Section 2, Question 2. b. Codes for type of agreement (use all that apply): 1 = Constitution, 2 = national law or decree, 3 = ministerial decree, 4 = concession, 5 = contract, 6 = acquired through projects, 7 = other (specify), -9 don't know. Agreements for owner/manager are likely to be only types 1, 2 in this list. c. If forever or in perpetuity, use 1000; -9 = respondent does not know.

### 5.11.3 Basic terms

**Statutory or *de jure* rights.** A statutory or *de jure* right concerns a set of rules established by law and protected by the state (e.g. registered land titles, concession contracts, the forestry law and regulations).

***De facto* rights.** *De facto* rights refer to patterns of interaction established outside the formal realm of law. They include but are not limited to customary rights. For our purposes we refer to those who are actually using the resource as the ones with *de facto* access or rights.

**Customary rights.** Customary rights refer to a set of codified community rules and regulations inherited from ancestors and accepted, interpreted and enforced by the community, which may or may not be recognised by the state. If they are recognised by the state then they are also *de jure* rights. So statutory rights are always *de jure*, but customary rights may be *de facto* and/or *de jure*.

**Community.** A community is as a more or less defined group of people with some degree of collective decision making. Hence, in a single village, there may be more than one ‘community.’ We use the term community then to refer to a village or a group of villagers.

**Ownership.** The owner of land is usually associated with the *de jure* property right holder, but more specifically the holder of the title and the one who has the right to sell the land. This definition of ownership is applicable to agricultural land, because titles are much more common on agricultural lands than in forests. The state is less likely to relinquish control over forests or, particularly, to allow it to be bought and sold. Hence communities and individuals in forests are more likely to have *de jure* rights but not title or the right to sell the land. Even if communities have title to forest land, the sale of the land may be prohibited (sale or mortgage of indigenous territories is often prohibited by law for example). The Rights and Resources Initiative has thus expanded the definition of forest owner, which we refer to as ‘owner/manager’ in the next definition.

**Owner/manager.** The owner/manager of forest land is the legally recognised entity, by the state or central government, that holds the long-term management rights to the land, and those rights are not conditioned on certain behaviour and cannot be unilaterally abrogated; rather, overturning them would require due process of law and compensation. (See specific explanation under Category 1 below). While not perfect, this less restrictive definition of owner/manager allows a degree of community and individual control to be manifest that would otherwise be invisible or opaque if observed through the lens of rights and titles more typical of agricultural property.

**Ownership (owner/manager) versus access.** Access or use rights are rights that only permit people to use resources, but not to make decisions about their management over time. In these cases the *de jure* owner is usually the state.

**Management.** Management refers to ‘the right to regulate internal use patterns or transform the resource’ (Agrawal and Ostrom 2001: 489). It is understood as a collection of decisions, practices and concepts that involve decision making beyond the immediate resource use, hence planning for future use.

**Open access.** Open access refers to the lack of management and the power to exclude, or the failure to enforce rules or regulation of resource use. Note that open access is rarely a separate land category at the *de jure* level, in the sense that land almost always has a *de jure* owner (and the state often being the default owner). But *de facto* open access can appear within all categories of *de jure* owners, in situations with no enforcement of rules, or where rules do not exist.

**Exclusion.** An exclusion right is the right to decide who can use the resource and who cannot. It is often associated with an owner/manager.

#### **5.11.4 Three-part classification system**

As mentioned above, we will classify tenure using three categories: *de jure* owner/manager; actual *de facto* user; and rule enforcement.

##### **Category 1: de jure owner/manager**

The owner/manager may be the state, the community, or a private individual, family or firm. As stated above, the owner/manager of land may have a title or may have been formally assigned the long-term ownership and management rights, by the state or central government, through grants, contracts, laws etc. that cannot be abrogated by the state without due process and compensation. These will therefore be very strong legal agreements or instruments (such as the Constitution or a law) and the rights granted must not be conditional on certain behaviour. Of course, these landholders are still subject to national laws and regulations, but their *right to own and manage the land* is not contingent on following the law, just as it is not for a private owner with title. (This kind of agreement is referred to in the table above in simplified form as ‘strong agreement’.)

This situation is quite different from a contract granting use rights, temporary management rights (e.g. community concessions in the Petén, Guatemala), or rights that are conditional on maintaining forest area (e.g. extractive reserves in Brazil). It is different from a contract where communities are being paid to take care of the land but cannot use resources from it (e.g. Vietnam); it is not the promise of title (even if this promise is in the Constitution) unless

conflicts have been resolved and the titling has occurred (e.g. indigenous communal lands in Bolivia); it is not a letter from local government or a village head (e.g. Cameroon) unless this grants a permanent right recognised by the central government. (This kind of agreement is referred to in the table above in simplified form as 'weak agreement'.)

It is likely that the specific *de jure* tenure situation in the villages will be information that can be obtained prior to going to the village. If so, this should be done to facilitate the work of the enumerators.

### **1. State owner/manager:**

We include in this category all lands owned by the state (public lands). In the forest sector, state-owned lands can include protected areas, forest lands awarded as concessions (e.g. logging, agroindustrial or silvicultural plantations and mining) and some kinds of community forestry. Communities may have contracts or use rights for certain areas of state land. Communities and individuals in forests may live in and use state lands without having any formal recognition of their right to be there. Even if they claim these lands as their own, they are usually *de jure* state lands.

The most important issue here is to determine whether a right granted to a community or individual/ household is a weak grant, such that the land is still clearly state land, or a very strong grant that will thus result in the classification of the grantee as owner/manager. Please refer to the definition of owner/ manager above. If in doubt as to the strength of the owner/ manager right, the state classification should be used and the issue noted for further investigation. [Questions in this regard can be sent at any time to project supervisors as well.]

### **2. Community owner/manager:**

We consider that land is owned and managed by a community under conditions where the community either has a title, or has been formally assigned the long-term management rights through grants, contracts, laws etc. that are not conditional and cannot be abrogated by the state without due process.

On community lands, there may be individuals with titles, or some other formal document from the state, that the community disputes. We may not be able to capture all of this level of detail in the research due to the complexity of the issue and time constraints.

### **3. Individual, household or firm owner/manager:**

We include in this category land titled to a private entity (individuals, households or companies) plus lands that have, as defined above, been semi-permanently assigned, through very strong legal instruments, for individual private management.

The table above and in Section 5 of the village survey permits the enumerator to provide the breakdown of titled, weakly assigned and strongly assigned lands. It is likely that in any one village, there will only be one or two types of *de jure* tenure.

### 5.11.5 Specific cases in our study countries

The Rights and Resources Initiative has already used this classification system in some of the countries that we are studying. Please use the categories in Table 5 of the village survey questionnaire as a guide (Table 7 below). Note that column 2a refers to state land managed by the state, while column 2b refers to state land assigned to communities. Only the third and last column refers to situations in which the rights are strong enough to be considered community owner/manager.

**Table 7 Classifications from RRG/RRI**

1 Country	2 State owner/manager		3 Community owner/manager
	a. State	b. Assigned to communities but not owned/managed	
<b>Bolivia</b>	Tierras fiscales, Areas protegidas, Reservas y concesiones forestales	Tierras Comunitarias de Origen currently under saneamiento	Tierras Comunitarias de Origen with title
<b>Brazil</b>	<i>Federal forests:</i> Estacao Ecologica, Parque Nacional, Reserva Biologica, Reserva Ecologica, Area de Relevante Interesse Ecologico, Terra Arrecadada, Floresta Nacional <i>State forests:</i> Estacao Ecologica, Monumento Natural, Parque Estadual, Reserva Biologica, Reserva Ecologica, Refugio de Vida Silvestre, Floresta Estadual	<i>Federal forests:</i> Reserva de Desenvolvimento Sustentavel, Reserva Extrativista <i>State forests:</i> Floresta Extrativista, Floresta de Rendimento Sustentado, Reserva de Desenvolvimento Sustentavel, Reserva Extrativista, Projeto de Desenvolvimento Sustentavel	Tierras Indigenas
<b>Cameroon</b>		Area under community forestry	
<b>DR Congo</b>			
<b>Indonesia</b>			
<b>Peru</b>		Reservas del estado	Areas de comunidades nativas
<b>Tanzania</b>		Joint Forest Management	Reserved areas of village land under Community-based Forest Management

Source: Sunderlin *et al.* (2008)

### **Category 2: *De facto* user**

The second category refers to the actual, or *de facto*, users of the land, that is, the entity or group or individual who is using it in practice, whether or not they have statutory rights or irrespective of the law. There might be a correspondence between *de jure* and *de facto* (that is, the owner/manager is also the user), or there might not be. They are commonly not the same on state lands that are being used by communities or individuals.

The users of the land or forest may, again, be the state, a community or individuals/households/firms. For the purposes of this research, we have identified four particular types of users. The first is the state, referring most often to cases where the state is both the owner and the user, such as a protected area without land invasions or users other than, for example, tourists. The second case refers to a community; remember that a group that is not the entire village can still be a community (see definition above). The third case refers to individuals or households. And the fourth case refers to a private user that is a company, such as a concession holder. These types are numbered in the coding system explained below.

### **Category 3: Managed/rule enforcement or open access**

The final category refers to a simple either/or proposition: either the area is controlled to some degree (e.g. there is some rule enforcement), or it is open access (e.g. anyone can extract resources; or land grabbing is common). We want to know which of these two conditions exists at present. For example, if a colonist invaded the land—suggesting that in the past it may have been open access—but now manages it or controls access by others, then there is some rule enforcement.

The ‘rules’ may refer to state regulations or local-level rules (e.g. the exclusion of outsiders or unwanted users, limits on extraction that are enforced to some degree, etc.). They may also simply refer to the fact people respect the boundaries of each other’s land, especially for individual property owners or users.

#### **5.11.6 The coding system**

The coding system for tenure uses a classification system that consists of the three dimensions or levels described above, where each dimension is represented by one digit in the three-digit code used. Make sure to always use three digits when the three-digit explanation is asked for, so that the information is complete. The explanation of the coding system in this section is necessary for understanding how to choose the codes from the chart below for both the village and the household survey. Below the chart there are specific instructions for each instrument.

1. The first digit refers to the *de jure* owner/manager of the land, as explained above for the first table of the tenure section in the village survey: 1) state owner/manager; 2) community

owner/manager; and 3) individual, household or firm owner/manager. In Table 1 of the village survey questionnaire, Table 6 above, this code is noted in column number 1.

2. The second digit refers to the actual *de facto* user: 1) the state, 2) community (which may be the entire village or a group of villagers), 3) individuals or households and 4) a private company. In Table 6 above, this code is noted in column number 7.

3. The third digit refers to the degree of rule enforcement: 1) at least some rule enforcement/control of access or 2) open access. In Table 6 above, this code is noted in column 8.

This generates a total of  $3 \times 4 \times 2 = 24$  combinations, though some of the codes will probably never be used, as they are unlikely combinations. Table 8 summarises the codes and provides a brief example of the type(s) of situations each category could cover. Note that this does not necessarily address all possible situations.



**Table 8 Coding for tenure regimes with examples**

Tenure regime	Code	Comments and examples
<b>State <i>de jure</i> owner/manager</b>	<b>1</b>	
State <i>de facto</i> user	11	Protected area with no users (except, for example, tourists)
Some rule enforcement	<b>111</b>	Managed exclusive protected area
No enforcement of rules (open access)	<b>112</b>	[Code should not be used, if people are using the park they should be specified through the second digit of the code]
Community <i>de facto</i> user	12	State areas that the village or a group within the village uses with or without state permission; state lands managed by village or group of villagers; customary claim areas (unrecognised)
Some rule enforcement	<b>121</b>	Access controlled by rules made by the community or state
No enforcement of rules (open access)	<b>122</b>	
Individual, household <i>de facto</i> user	13	Areas where households use state forests, such as to collect NTFPs; state lands used for exclusive use by individual villagers or households; state lands occupied or invaded by colonists/ settlers; individuals from outside the community (e.g. illegal loggers)
Some rule enforcement	<b>131</b>	Households follow rules at least to some degree
No enforcement of rules (open access)	<b>132</b>	for example, ongoing invasions
Private company	14	State concession area
Some rule enforcement	<b>141</b>	
No enforcement of rules (open access)	<b>142</b>	Subject to invasion, uncontrolled use
<b>Community <i>de jure</i> owner/manager</b>	<b>2</b>	
State <i>de facto</i> user	21	Unlikely combination
Some rule enforcement	<b>211</b>	
No enforcement of rules (open access)	<b>212</b>	
Community <i>de facto</i> user	22	Community area managed by the village or a group of villagers, common areas; a village area used or invaded by a different village
Some rule enforcement	<b>221</b>	Managed commons

Tenure regime	Code	Comments and examples
No enforcement of rules (open access)	<b>222</b>	
Individual, household <i>de facto</i> user	23	Village or community area used by individuals or households, or assigned for household or family use; community area invaded by colonists
Some rule enforcement	<b>231</b>	Households respect boundaries and assigned uses; managed well by colonists
No enforcement of rules (open access)	<b>232</b>	Ongoing invasions, land clearing
Private company	24	Community area granted in concession
Some rule enforcement	<b>241</b>	Managed well by company
No enforcement of rules (open access)	<b>242</b>	Invaded and used without control
<b>Individual, household, private firm <i>de jure</i> owner/manager</b>	3	
State <i>de facto</i> user	31	Unlikely combination
Some rule enforcement	<b>311</b>	
No enforcement of rules (open access)	<b>312</b>	
Community <i>de facto</i> user	32	Private area that community uses for some collection activities
Some rule enforcement	<b>321</b>	Organised and controlled uses
No enforcement of rules (open access)	<b>322</b>	
Individual, household <i>de facto</i> user	33	Private use area for exclusive individual or household use (classic private property), includes own use by owner and also land rentals to others; also private area that other individuals use without permission (could be resource collection, could be invaded by settlers)
Some rule enforcement	<b>331</b>	
No enforcement of rules (open access)	<b>332</b>	Invaded, uncontrolled access
Private company	34	Private area given in concession
Some rule enforcement	<b>341</b>	
No enforcement of rules (open access)	<b>342</b>	Subject to invasion, uncontrolled use

### **5.11.7 Filling in the table in Section 5, village survey**

To fill in the table above from the village survey, use an available map or make a rough sketch of the village land area. The first step is to ask the respondents the total area of the village in hectares and to place that figure at the bottom of column 3, row 4. Make sure that this total is the same as the total listed in Section 1B, Question 5. If they do not coincide, compare, discuss and adjust accordingly with key informants. All subsequent tenure zone estimates are subunits of this total and must add up to this total.

The second step is to ask the people being interviewed to divide the area on your map or sketch according to who owns the land (for now, using their own definitions is fine). Use this as a reference for identifying land owner/manager according to our categories. For each section, assess the *de jure* owner/manager with the following questions.

#### **1. How to assess de jure owner/manager (1-3)**

The corresponding amount of land will be written in column 3. The approximate percentage of this area under forest cover will be written in column 4. (Note that these percentages will NOT add to 100%, as they refer to the percent under forest cover in each area, not the percent of total forest area.)

For each part of the village land that has been identified as having different owners, ask the following questions:

a. Who or what entity holds the title to the land?

If the answer is community or individual/household/private, write the amount of land in Column 3 rows 2a and 3a respectively. For any other answer, ask the following questions:

b. Have any areas been formally granted to the village, or to individuals/households/private entities, for use or management of any kind, by the state (central government)?

If no, write the area of unassigned state land in column 3, row 1a.

If yes, ask the following questions:

c. Does this grant provide a permanent or semi-permanent right to the village [or individuals/households/private entities], backed up by the Constitution, law or other very strong written agreement, that is not conditional on certain behaviour and that cannot be overturned without due process and compensation by the state?

If no, these are weak agreements. Write the area in column 3, row 1b (village) or 1c (individual/households/private entity).

If yes, these are strong agreements. Write the area in column 3, row 2b (village) or 3b (individual/households/private entity)

For all of these areas, fill in columns 5 (type of agreement) and 6 (length of agreement).

Repeat this process as needed until all the land in the village has been classified.

## 2. How to assess actual *de facto* user (1-4)

The corresponding code will be written in column 7.

The second set of questions refers to the actual *de facto* users of the land. Use the same map or sketch you used above. Make sure it is now divided according to the *de jure* areas and explanations referred to in columns 1 and 2. Then specify the actual *de facto* users in each of these areas to facilitate responses. Ask the following questions.

a. For each different area of *de jure* owner/manager, who are the actual (*de facto*) land users?

If there is one user, write this on the corresponding row in the table.

If there is more than one user, ask the following question:

b. Do these users use spatially separate areas?

If yes, use the additional lines in the corresponding row in column 7 to note the different user codes;

If no, ask the following question:

c. Which is the primary user? Note the primary user on the corresponding line in the table.

There is space under the table to note additional users in the lines provided.

## 3. How to assess if managed or open access (1-2)

In column 8, indicate whether the area of land is controlled or managed to some degree (there is some rule enforcement) or if it is open access. Ask questions to determine if there is any rule enforcement or control over who has access to this land. Note that it is not enough for rules to exist, they also have to be enforced. Ask the question:

Are there any rules regarding access to or use of this land and, if so, are they enforced at all?

If there are no rules, or rules exist but are not enforced, the code would be 2 (open access).

Remember, 'rules' may include state regulations, local rules, or a household's right to decide who can have access to its land.

Finally, the 3-digit codes, taking the first digit from column 1, the second from column 7 and the third from column 8 should be combined in column 9 for future use in the survey.

Space is available below the table, under question 2, to provide any details about tenure arrangements that are not captured by the codes. Here you would note the name of the tenure arrangement, if there is one, such as extractive reserve, settlement area, TCO, etc. You could use this space to note beneficiaries of assignments that refer to 'communities' that do not

include the whole village; you would note additional users where there are multiple users in one *de jure* area. You can also use this space to note concerns over owner/manager classifications that require follow-up, as mentioned above.

In this same section of the village survey, in questions 3-5, you will also be asking about tenure conflicts and the amount of area in dispute. This will be particularly important to note for areas under unrecognised customary claims.

### 5.11.8 Examples for practice

Three examples follow with a simplified version of the table. Please note that the real table has additional columns to be filled out!

#### Example 1 Simple case

Village X occupies 100 ha of state land. Its inhabitants have lived on this land for many years but have never received any assignment or grant of land rights. The village uses part of the land for community use and part of the land for household use. Though neighbouring communities sometimes come into the forest area to extract firewood and timber, access to both areas is fairly well controlled.

The categories would be as follows:

The total land area would be written under row 1a in Column 3 and there would be two user codes in column 7. Column 8 would be 1 for managed. Combined codes under column 9 would be 121 for the community use area and 131 for the household use area.

**Table 9 Coding practice Example 1**

<i>De jure</i> owner/ manager [digit 1]	2 Explanation	3 Area (approx. ha)	7 Actual user [digit 2]	8 Managed or open access? [digit 3]	9 THREE- DIGIT CODE
1 State	1a. State lands, legally 'unclaimed', unassigned according to state, including unrecognised customary claims	100	2	1	121
			3	1	131

#### Example 2 More complex case

An indigenous community occupies a total of 200 ha. It has title to part of this land (100 ha) but not the rest (100 ha). It claims use of all the land in the village, however. Most of this land is

used as a commons by the whole community, but part of the titled land is for the exclusive use of households (it is a spatially separate area). The area that is titled is reasonably well-managed but the community has no way to control invasions into the untitled area.

The categories would be as follows:

Under row 1a, 100 ha would be noted as 122 (state owner/manager, community user, open access)

Under row 2a, 100 ha would be noted on one line as 221 (community owner/manager, community user, managed) and on another as 231 (community owner/manager, individual or household user, managed)

**Table 10 Coding practice Example 2**

<i>De jure</i> owner/ manager [digit 1]	2 Explanation	3 Area (approx. ha)	7 Actual user [digit 2]	8 Managed or open access? [digit 3]	9 THREE- DIGIT CODE
1 State	1a. State lands, legally 'unclaimed', unassigned according to state, including unrecognised customary claims	100	2	2	122
2 Community	2a. Titled lands	100	2	1	221
			3	1	231

### Example 3 Complex mosaic

A village claims customary rights to what the state considers state land (500 ha). On this land, there is a state protected area (100 ha); the community sometimes gathers firewood and NTFPs without permission but overall it is a functioning state-managed protected area. There is an area to which a community forestry group within the village has been assigned use rights (50 ha), which they use exclusively and with specific management rules. Finally there is a third state owned area that the village occupies without any state permission or agreement (100 ha). Part of that area is for community use and part of it is for household use. Both are managed under local rules.

A small area (50 ha) has been titled to individual households and is managed as private land (people more or less respect the boundaries of others). Another area has been granted as a logging concession to a private company (200 ha). The community also invades the concession area for resources but the company has guards that make this difficult to do.

The categories would be as follows:

Starting with the easiest areas first (*de jure* areas with only one user), we have 50 ha titled to households in row 3, with code 331 (titled to household, used by household and managed). Under weak agreements we have one 50 ha area assigned to a community forestry group and managed (code 121) and a private forest concession of 200 ha, where villagers try to use resources but it is relatively controlled (code 141).

The remaining 200 ha area falls under row 1a—state owner/manager and unassigned. This includes the protected area, the area claimed by the community for communal use and the area claimed by the community under household use; one *de jure* area, three users. In the latter two areas, both users use spatially separate areas with some degree of rule enforcement. Hence the categories are, respectively, 121 and 131. For the protected area, the users are the state and the community. The primary user is the state, hence the code is 111, but it should be noted in the space below that table that in the area with this code, the community does extract some resources.

[Note that if the community was the primary user of the protected area because there is no state control, you could have a second number 2 in column 7 and a code 122 (for open access) in column 9.]

**Table 11 Coding practice Example 3**

<i>De jure</i> owner/ manager [digit 1]	2 Explanation	3 Area (approx. ha)	7 Actual user [digit 2]	8 Managed or open access? [digit 3]	9 THREE- DIGIT CODE
1 State	1a. State lands, legally 'unclaimed', unassigned according to state, including unrecognised customary claims	200	1	1	111
			2	1	121
			3	1	131
	1b. assigned to village (weak agreement)	50	2	1	121
	1c. assigned to individuals/ households/private entities	200	4	1	141
3 Individuals/ households	3a. titled land	50	3	1	331

Note that two different areas have the same code, 121. In future questions, you will have to distinguish between which code 121 area you are referring to. See below on how to address this problem if it arises.

In the question following the table, you may note that all 500 ha are in conflict because the state has not recognised the community's claim. Or the community may only consider the area that has been declared a protected area or under the logging concession as 'area in dispute'.

#### **5.11.9 Additional information on village surveys**

After establishing the primary types of tenure in the village through the coding system in Table 5 of the village survey, you will need to use the 3-digit codes in this table to identify land areas in Sections 7 and 8, in order to answer questions about those areas. In Section 7 the questions refer to causes of deforestation and degradation and in Section 8, to tenure security and exclusion rights.

Since these codes were established with key informants, you will need to explain to the group the area that each 3-digit code refers to. This should be done with the support of a map if possible, or if not, a clear verbal description of the distinctions between the areas under each code. Again, in most communities there will only be 1 or 2 codes. For example, you may only need to say, 'in the communal area' versus 'in the area that individual households use for agriculture'. Or you may need to say 'in the protected area,' 'in the area assigned to the community through the xx agreement', etc. Use local terms where possible as expressed to you during the interview in which you filled out the table; you can also look over the types of areas in the chart above to help find appropriate wording.

In a few cases, as in Example 3 above, a single 3-digit code may refer to more than one area. When you ask questions about these areas, note the line number on the table in parentheses to distinguish them. For example, 121 (1a) will refer to the unassigned state land and 121 (1b) will refer to the assigned community forestry area.

In Table 8C, column 7, you will have to identify the tenure of the forest areas being used by outsiders. The codes should correspond with codes that already appear in Table 5. If outside actors use more than one area, use the code 999.

#### **5.11.10 Household survey**

All use of the tenure codes in the household survey requires the 3-digit tenure code. Refer to the chart here for those codes. Note that lands controlled by the household are not necessarily the same as lands owned by the household. Land controlled by the household is land that it manages on its own and is able to exclude others from using, whether or not it is owned.



Questions will have to be asked to assess the *de jure* owner/manager for the tenure code (the codes established in the village survey will reduce the options about which you need to ask questions). For example, this may be state land (1) or community land (2) that the household controls for exclusive use (or uses in common with others), or the household may have title (3).

The actual *de facto* user for lands 'used by the household' will be code 3 (individual/household). The user for lands rented out will also be code 3 (individual/household). Lands used in common with other households or as community commons would be user code 2 (community).

Again, the third digit depends on the degree of rule enforcement. Assess rule enforcement (1-2) with questions such as: Are there rules regarding access to and use of this land and, if so, are they enforced at all? If there is no rule enforcement, then the code would be 2 (open access).

## **6 Integration of research across GCS-REDD+ components**

### **6.1 Components 1 and 2**

Component 1 (which focuses on national policies and processes relevant to REDD+) and Component 2 have many complementary elements. In order to assess the importance of different project and institutional designs on outcomes, it is necessary to understand the way in which the wider context, events and relationships affect on-the-ground implementation of REDD+ projects. In addition, Component 2 results will provide an empirical reference point to assess if national REDD+ policies and processes work or not. There are therefore a number of key issues which will be better understood by an examination across the different scales of the two components. For example, a study of decisions and debates on benefit sharing at the national level would be greatly enhanced by matching this with the realities at the site and village level and *vice versa*. Other key issues may include: locating an understanding of the local causes of deforestation in an analysis of national dynamics; assessing the way in which national-level MRV institutions allow public involvement in the design and implementation of REDD+; understanding the tension between national and subnational interests and how this affects the implementation of REDD+; and understanding the degree to which such external influences and interests have played a part in the outcomes. Such collaboration between the two components also provides the opportunity to examine the role of federal and provincial institutions and dynamics as in many countries, subnational governments constitute powerful stakeholders for land-use policies. Finally this multiscale analysis will provide lessons on what is required for mainstreaming REDD+ into the planning, budgeting and priority setting of local and national government.

### **6.2 Components 2 and 3**

Strong collaboration is required between Components 2 and 3 because climate change mitigation effectiveness (the first of the 3Es) will be measured at all Component 2 project sites and because Component 3 is the CIFOR seat of expertise on the biophysical aspects of climate change mitigation, especially on monitoring, reporting and verification (MRV).

Component 2 and 3 collaboration will involve the following tasks, to be led by a joint post doc to be hired in early 2011:

- MRV capacity assessment at all 20 project sites
- Invitation of the MRV experts at project sites to participate in MRV capacity building workshops led by CIFOR scientists
- Collection and analysis of baseline ('before') and control-interventi ('after') remote sensing and GIS data at all project sites
- Ground truthing of remote sensing data at all project sites

Some joint Component 2 and 3 publications will be produced on methods as well as measurement of climate mitigation effectiveness.

### **6.3 Components 2 and 4**

Component 4 provides one of the main avenues for dissemination of research findings produced by Component 2. The CIFOR web platform on 'Forests and Climate Change,' produced by Component 4 will be one of the main ways that Component 2 broadcasts its products.

The two components will collaborate closely in creating and maintaining the database of REDD+ project sites that will be posted at the web platform.

Other forms of service from Component 4 include producing of CIFOR publications and assistance in organising events, for example the launching of 'A guide for learning about REDD+' at COP 16 in Cancún.

## 7 Technical procedures

### 7.1 How to conduct a random sample of households

The general rule is that households should be selected through random sampling from the total population in the village. In other words, no *ex ante* sampling criteria should be imposed, such as respondents being farmers or having forest income. Randomness is the only way to get a representative sample and thereby draw conclusions about the full population from the sample statistics. There are at least four ways to generate a random sample of households. Whatever method chosen, keep in mind the definition of random sampling: each household in the village should have the same probability of being selected.

1. A reliable list of households in the village (e.g. from census, village register or voter registration) is often the best starting point for the **random selection** of households. Number the households and use a random number generator (e.g. in Excel or print a random number table (e.g. [http://ts.nist.gov/WeightsAndMeasures/Publications/upload/h133\\_appenb.pdf](http://ts.nist.gov/WeightsAndMeasures/Publications/upload/h133_appenb.pdf)) to select the households.
2. If reliable village lists are not available, one can plan to interview **every  $n^{\text{th}}$  household** ( $n = \text{total \# of households} / \text{required \# of households}$ ) as one moves along some dimension of the village. But be careful. If you move along the main road only, you will exclude more remote households and therefore get a biased sample.
3. **Aerial photos** can also be used, provided good photos are readily available. Number the houses and then make a random sample selection by drawing the numbers from a hat or by using the random number generator (see No. 1 above).

The concept of random sampling may not be clear to the village head or others in the village and notables in the village may feel offended for not being included. Others may suspect that you select households based on who you like or related criteria. Thus it may prove useful to make the selection transparent by having representatives from the village present when you draw your sample.

#### **Sample must exceed the target for the purpose of replacement**

Always draw a sample that is larger than the target number of households. If the target is 30 households in a village, draw a sample of 40 or thereabouts. The reason is that, inevitably, some of the households you have chosen in your list of 30 will fall out and will have to be replaced. Some of the selected households may be unavailable, in some cases you might be

unable to get both the husband and wife as respondents and some households might refuse to participate for various reasons. In some cases you will conduct the interview, you will find the quality of the answers unsatisfactory and you will want to replace the household interview.

Once you have generated the list of 40 randomly selected households, divide it into 30 target households and 10 replacement households. As the need for replacement arises, choose the household at the top of the replacement list and then the second from the top and so on. Do not choose the household in the replacement list that is easiest to interview, e.g. the one that is closest. Observe the sampling rule to a fault: avoid any source of bias in the selection process; each household must have the same probability of being selected.

## 8 Technical definitions

### 8.1 Household

GCS-REDD+ uses the definition of household used in CIFOR's PEN project. That definition reads:

A household is defined as a group of people (normally family members) living under the same roof and pooling resources (labour and income). Labour pooling means that household members exchange labour time without any payment, e.g. on the farm. Income pooling means that they 'eat from the same pot' although some income may be kept by the household member who earns it. One should also note that it is possible to have household members who are no blood relatives of the family, e.g. a household servant, an in-law, or someone taken into the household because they have been orphaned or are otherwise destitute.

In most cases the members of the household are easily identified, but here are some difficult cases:

1. Polygamy: If a man has several wives, each living in separate houses, then each of the houses of the wives should be treated as a separate household. The man's contribution to the particular household selected should be included. (Note: if the sampling is based on selecting household head and a man with two households is included in the sample, one should include both households and register them as two separate ones.)
2. Several families living together in one house: If there is resource pooling, they should be treated as one household, otherwise not. An example: A married son still lives in the house of the parents. If his family's economy is separated from one of his parents (no income pooling and they only occasionally eat together), they should be treated as two separate households.
3. Family members living away parts of the time, e.g. working or going to schools: Include if they are more or less fully integrated in the household economy (e.g. school children living away during the week, but parents paying for their expenses). In other cases where children have left the house to work and take care of themselves, but contribute some income to the remaining household, they should not be included in the household. But, the money contributed should be recorded under remittances.
4. In some situations an extended family may be living in different houses, but sharing the same land and income and eating most of their meals together. Again, following the

household definition of ‘resource pooling’, the extended family should be treated as one household, although they don’t sleep under the same roof.

5. One may have single person households, e.g. a widow living alone.

## 8.2 Forest land use categories

GCS-REDD+ Component 2 follows the example of CIFOR’s PEN project in adopting the FAO definition of forest. The FAO definition of forest reads as follows:

Forests are lands of more than 0.5 hectares, with a tree canopy cover of more than 10 %, which are not primarily under agricultural or urban land use... The trees should be able to reach a minimum height of 5 metres *in situ* (FAO 2000).

Below, we paraphrase directly from the CIFOR PEN technical guidelines for filling in this definition of forest.

### 8.2.1 Categories of forests

We also follow the FAO distinction between natural and plantation forest. However, the FAO’s ‘natural forest’ is further subdivided according to the degree of management and human disturbance. Component 2 of GCS-REDD+ instead uses three forest categories, defined in the following way:

1. **Natural forest** consists of indigenous (native) tree species. It is managed only to a very limited degree, i.e. one may practice ‘tolerant forest management in which the native vegetation is largely conserved or reconstructed through successional processes’ (Weirsum, K. 1997).

In natural forests, most beneficial trees occur spontaneously, although there may be some degree of management to stimulate the frequency and growth of these trees, e.g. by clearing competing vegetation.

2. **Managed forest** consists predominantly of indigenous vegetation with active management to increase the frequency and productivity of beneficial species. The management will include felling (trimming, thinning in addition to regular harvesting) and planting of indigenous or exotic species.

Managed forest will include both what is termed production forest, i.e. forests managed for timber production, and forests managed for various NTFPs. Forests and old forest fallows that have been enriched, e.g. by the planting of fruit trees, will therefore fall under this category. (See also discussion of fallow in the section below.)

**3. Plantation** consists of forest stands established by planting and/or seeding in the process of afforestation or reforestation. They are composed either of a) introduced species (all planted stands), or b) intensively managed stands of indigenous species, which meet all the following criteria: one or two tree species planted, even age class, regular spacing. (FAO definition)

Take special note of the additional requirements above which restrict the definition of plantations with indigenous (native) species. If the land area is planted primarily with native species, but the trees are of uneven age and spacing, then this forest would not be categorised as 'plantation', but instead as a 'managed forest'.

While these three categories exist along a continuum, some important distinctions are made. Moving from category 1 to 2 is marked by the active felling and planting in order to increase the production of beneficial trees. Moving from 2 to 3 is marked by the vegetation going from being predominantly spontaneous indigenous species to being predominantly planted species (either indigenous or exotic).

In other words, our primary criterion for the distinction between forest types is the degree of human intervention. Our secondary criterion is the type of tree species that the vegetation systems are composed of.

Including plantations into the forest definition is by some seen as controversial: after all, it would almost only be the size of the cultivated plants that distinguishes these systems from agriculture. However, by clearly distinguishing in PEN surveys between the two types of natural forest and plantations, one can do separate analysis with a more narrow forest definition (excluding plantations) and a broader one (including plantations).

### **8.2.2 Open-closed forest**

In the codes for forest categories (*code-forest*), a distinction is made between open and closed forests. This follows the FAO definitions with a 40 % canopy cover dividing line. Thus,

- **Closed forests** have a canopy cover above 40 %. Examples include tropical rainforest and mangrove forest.
- **Open forests** have a canopy cover between 10 and 40 %. Open forests generally have a continuous grass layer. Examples include the wooded savannahs and woodlands in Africa and part of the *cerrado* and *chaco* in Latin America.



### 8.3 Agricultural land use categories

Here we define various agricultural land use categories used in the household survey, Table 2A, as well as in various other research instruments. These definitions are copied or adapted from the CIFOR PEN technical guidelines.

#### Cropland

Cropland is defined as land from which crops are harvested. But, a few exceptions to this general definition are worth pointing out:

- Idle cropland, i.e. land which is normally used for crops but temporarily not cropped, should be included under in a different land use category (e.g. ‘early secondary forest,’ ‘intermediary secondary forest,’ or ‘mature forest,’ or ‘other’) depending on successional status and type of vegetation on the land.
- Following the FAO definition, land with trees grown for wood or timber should be categorised as plantation.

Annual crops cultivated in combination with trees should be categorised as agroforest.

#### Agroforestry

Agroforestry is not classified as forests (it ‘fails’ on the agricultural use criterion) and is in PEN research a separate land category. Agroforestry is defined as ‘an agricultural land use that combines growing trees (woody perennials) with annual (herbaceous) crops, either on a spatial or temporal scale.’<sup>4</sup> Note that agroforestry is characterised both by the type of vegetation (mix of trees and annual crops) and the intentional establishment of this system by humans for agricultural purposes.

#### Pasture

Pasture is generally referred to as land covered with grass or other vegetation (herbaceous forage crops) eaten by grazing domesticated animals. In PEN, we limit the definition of pasture to cover only land where grasses and/or legumes have been established by humans and/or involve some other form of active management. Thus, natural grassland used for grazing is not included in our definition of pasture, but is instead classified as grassland (see below).

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<sup>4</sup> The broader definition according to the World Agroforestry Center is: ‘Agroforestry is a dynamic, ecologically based, natural resource management system that, through integration of trees on farms and in the agricultural landscape, diversifies and sustains production for increased economic, environmental and social benefits.’  
<http://www.worldagroforestry.org/Agroforestry.asp>.

## Silvopasture

While agroforestry is the combination of trees and crops, silvopasture is the combination of trees and pasture. To qualify as a silvopasture system, either the trees or the pasture (or both) must have been established by humans. Thus, a savannah area with naturally existing trees and grass cover, used for grazing livestock, does not qualify for being a silvopasture (nor a pasture). As for agroforestry, land devoted to silvopasture is not considered forest in the PEN research.

**Table 12 Canopy cover categories and land use classifications**

	Tree canopy cover		
	None	0-10 %	Above 10 %
<b>Planted grass (or legumes)</b>	<b>Pasture</b>	<b>Silvopasture</b>	
<b>Natural grass cover</b>	<b>Grassland</b>	Savannah, but included in ' <b>Grassland</b> ' in PEN research	<b>Forest</b> or <b>silvopasture</b> if trees established by humans

## Fallow

Fallow land refers to land which is part of an agricultural (cropping or pastoral) rotation system, but which is temporarily not being cultivated. This category raises some challenges, as fallow land in terms of vegetation cover can represent a continuum from bare land, grassland, bush/shrubs, to young forest and mature forest.

Different from the CIFOR PEN project, this research project does not have a separate category for fallow lands in the household survey, Tables 2A and 2B. Instead, we subsume fallow lands under other non-agricultural land use categories, as explained above.

## 8.4 Other land use categories

Here we define some of the land use categories classified as 'other' in the household survey, Table 2A.

### Shrubs

According to FAO, shrubs 'refer to vegetation types where the dominant woody elements are... woody perennial plants, generally of more than 0.5 m and less than 5 m in height on maturity and without a definite crown.'<sup>5</sup> Thus, woody vegetation is broadly classified into forest and shrubs, where a plant height of 5 metres draws the line. Shrubs with a closed canopy are referred to as thicket.

The term bush is popularly used interchangeably with shrubs, but bush sometimes also refers to open woodlands and wilderness areas. If, however, the canopy cover of the woodland is more than 10 % and the tree height above 5 metres, it should be grouped as forest.

### Grassland

Grassland has naturally occurring grass as the predominant vegetation. If it has trees scattered around (and canopy cover below 10 %), it is referred to as savannah or wooded grassland, but is still categorised as grassland in PEN research. If the canopy cover is above 10%, it should be classified as forests (e.g. woodlands in Africa, which is a form of open forest with canopy cover between 10 and 40 %).

Grassland may be used for grazing domestic animals and may then be referred to as rangeland. In PEN research it would still be categorised as grassland, not pasture.

### Wetlands

Wetlands refer to land areas where water saturates the soil, either permanently (swamp) or for parts of the year. Mangrove forest is often considered a wetland, but should in PEN research be included in the 'unmanaged natural forest' category. If a wetland is used for agriculture, e.g. for paddy rice, it should be included in one of the agricultural land categories.

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<sup>7</sup> [http://www.fao.org/documents/show\\_cdr.asp?url\\_file=/DOCREP/004/Y1997E/y1997e1m.htm](http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/004/Y1997E/y1997e1m.htm)

## 8.5 Income

Section 3 of the household survey measures total household income in the course of the year prior to the date of the interview. As regards the definition of income in this project, the central points to bear in mind are that in the household survey:

- Total household income is composed of subsistence and cash revenue.
- Subsistence income is monetised (see Annex 7 on Valuation and Pricing) so that we can arrive at a figure for total household income.
- Household labour is not monetised.

In this research project we are adapting the definition of income used in the CIFOR PEN project and paraphrase it as follows.

‘Income is generally defined as the value added of labour and capital (including land). The income of a household is therefore the return to the labour and capital it owns, used in own production and income-generating activities (self-employment or business) or sold in a market (e.g. wage labour). We also include transfers in the income definition, e.g. in the form of remittances or pensions. Thus, income consists of three broad components:

1. Income (cash and subsistence) from self employment and business;
2. Wage income (Section F) and income from renting out capital; and
3. Transfers.

The basic income equation for income from self-employment or business (agriculture, forestry and any other business) is:

$$I = \sum_{i=1}^n p_i y_i - \sum_{j=1}^m q_j v_j$$

Income (I) is gross value (price times quantities of all  $n$  products) minus the total costs (price times quantities) of all  $m$  purchased inputs (e.g. fertilisers, seeds, tools and hired labour). Note that the costs of family labour should not be deducted to obtain household income. One may want to measure the amounts and costs of family labour for other purposes, e.g. comparisons of the profitability of different activities, but it is not needed for calculating household income.

Total household income is the sum of cash income and subsistence income, the latter referring to the value of products being consumed directly by the household or given away to friends and relatives. One should be aware that many respondents may consider income to mean cash income only. It is very important that our expanded definition of income (subsistence + cash) be clear to the enumerators and respondents.’

## 8.6 Wellbeing

In Section 4 of the household questionnaire, in Section 9 of the village questionnaire and in Section 3 of the women's questionnaire we measure perceptions of change in wellbeing in the two years prior to the interview.

For purposes of the household questionnaire, we use Webster's broad definition: 'the state of being happy, healthy and prosperous' (Webster online dictionary). Respondents will tend to have their own conception of what wellbeing means, so one should avoid imposing a rigid definition. This corresponds to the concept of 'subjective wellbeing' as applied in Cahyat *et al.*: 'Feelings of subjective wellbeing are the feelings of an individual; these can be feelings of prosperity, happiness, being respected, being acknowledged, being poor, or similar feelings. These feelings are extremely general and are influenced by all aspects of life' (2007:3).

In the village and women's questionnaires, we provide the respondents with an opportunity to develop their own, jointly agreed and location-specific definition of what wellbeing means to them. Note that in the women's questionnaire the definition of wellbeing is specific to the experiences of women.

## 8.7 Swidden agriculture

We define swidden agriculture (sometimes called 'shifting cultivation') as '... land that is cleared of woody vegetation for the temporary production of staple food crops mixed with other annuals and/or perennials useful for local use and/or markets.' (van Noordwijk *et al.* 2008).

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## Annex 1

# Instructions for Village Appraisal Form

*Please read these instructions carefully. They explain not just the purpose and use of the form, but also our overall approach to choosing intervention and control villages for the research.*

### Objectives of the form

The objective of the Village Appraisal Form is to gather village-level data that will help guide our selection of intervention and control villages for the BACI analysis. Village Selection Variables (VSVs) (one for each question in the form) will serve as the basis for identifying intervention and control villages that are similar to each other. The more similar they are to each other, the greater our assurance that differences between intervention and control villages in the ‘before’ and ‘after’ periods are attributable to REDD+ and not something else. The use of the Village Appraisal Form is closely linked to the use of Exercise 27 in the Proponent Appraisal Form. This is explained below.

### Challenges in identifying candidate villages

The aim of the task in the pre-test period is to compile a list of candidate villages (and information related to the VSVs) that will serve as our sample frame for selecting four intervention villages and four control villages.

We need data on substantially more than eight candidate villages, because similarities between intervention and control villages are required across 22 variables. With a large number of villages, we increase the likelihood of finding similarities and producing good matches for comparison.

The scope of intervention village selection will vary widely across project sites. Some project sites include few villages (in some cases as few as three). There, the work of identifying candidate intervention villages requires little time and effort. Other project sites include more than a hundred villages. There, it will be necessary to go through pre-selection steps to narrow down the scope of the task (see below).

The scope of candidate control villages also varies widely, but for different reasons. On the one hand, there is a practically infinite number of candidate villages that are outside the project site boundaries and that are not subject to REDD+ incentives. On the other hand, villages that are too far away from the project villages might not share many similarities in terms of the VSVs. Proximity to the project site helps improve the chance of finding good matches. But don’t forget that control villages should not be too close to intervention villages. We have to avoid the risk of leakage from intervention to control sites (e.g. displaced deforestation and degradation, or multiplier effects from project benefits, etc.).

Another challenge relates to technical guidance. You will have to make at least a tentative decision about the four intervention villages during the pre-test while you are in the field. The reason these instructions are elaborate is to give you as much guidance as possible on this important task.



## Selecting candidate intervention villages

We want you to make at least a preliminary selection of the four intervention villages during the pre-test period, while you are in the field. The reason is that these four villages will serve as your guidepost for identifying candidate control villages. If you know the four intervention villages you want to match on, this narrows the scope of the types of control villages you will seek and reduces your workload.

### *Filling in the table in the Proponent Appraisal Form*

The first step in identifying candidate intervention villages is to fill in the table in Exercise 27 in the Proponent Appraisal Form, pages 15–16. This is a manageable task if there are 16 or fewer villages in the whole project site. If the number of villages in the project site exceeds 16, you can reduce the list to 16 or fewer by including in the list only the villages that meet the following criteria.

- The proponent is actually planning a forest intervention in the village (the answer in column ‘c’ is not ‘none’).
- The proponent will be applying a forest intervention approach (the answer in column ‘d’ is not ‘none’).

The resulting list will consist of only those villages where the proponent is planning specific interventions with a specific approach.

If the number of villages still exceeds 16, then the list can be reduced further by listing only those villages where the rate of deforestation and degradation in the last five years is equal to or greater than the mean. (That is, the answer in column ‘a’ is either ‘average’ or ‘higher’.) You might wonder why we do not narrow down still further to villages where the rate is higher than the mean. The reason is that this might make it difficult to find matching control villages in areas where all of the villages with higher than average deforestation have been included in the REDD+ project site.

If you have chosen to reduce the list by the methods explained above, it is important for you to make this clear by writing an explanation in the margins of Exercise 27. Make it clear what rules you have applied for reducing the list.

Once you have narrowed down the list sufficiently, you are ready to select the four intervention villages. The first of these intervention villages will be the one village that the proponent believes will be most successful in achieving the forest intervention goals (column ‘f’). The logic is that this presumably maximises the contrast between intervention villages (strong application of REDD+ intervention) and control villages (no application of REDD+ intervention). The other three intervention villages will be chosen as a random sample of the remaining villages in the reduced list.

In the event that the proponent chooses not to guess which site is likely to be most successful, then all four intervention villages will be selected on the basis of a random sample of the reduced list.

You are filling in the list in Exercise 27 (and do not limit yourself to the four candidate intervention sites) as a procedural safeguard. In the event that for whatever reason we have to change our method of

selection or replace an intervention village or village(s), we need to have a complete sample frame for making an alternative decision.

### ***Filling in the Village Appraisal Form***

The information in the table in Exercise 27 of the Proponent Appraisal Form must be transferred (one form for each village) to the Village Appraisal Form. Note that questions 'a' to 'f' in the table in Exercise 27 correspond to questions 17–22 in the Village Appraisal Form. You then must fill in questions 1–16 for each of these villages.

In the event that there is no secondary information to back up the answers provided in the form, the FRS should ask respondents for best guesses rather than leave the answers blank. However, there should be a common logic in the responses across all villages to avoid a situation where a village is wrongly selected or deselected because different respondents interpret the questions differently.

### **Selecting candidate control villages**

#### ***Filling in the Village Appraisal Form***

The Village Appraisal Form should be used to compile information on 16 candidate control villages. The aim should be to find four candidate control villages for each of the four candidate intervention villages. Just four of these 16 villages will be selected as the control villages. The selection will be done after you have returned from the field, through a consultation with Subhrendu and William. Only questions 1–20 should be filled in for the candidate control villages because questions 21 and 22 pertain only to candidate intervention villages.

#### ***Bases for candidate control village selection***

Bear the following guidelines in mind as you determine which candidate control villages are suitable for listing in the Village Appraisal Form:

- The aim, once again, is to find villages that are functionally similar to the intervention site. The only meaningful difference is the planned REDD+ intervention.
- No two villages will be identical. The aim is to minimise differences within tolerable bounds. These tolerable bounds will be determined once all the data for 20 project sites are in.
- Candidate control villages that match the candidate intervention village are likely to be relatively close in terms of distance. There is a tendency for neighbouring villages to share basic characteristics (e.g. main livelihood, main type of transportation, tenure arrangements, etc.). There will be exceptions where neighbouring villages are quite different from one another and villages at a distance are good matches.
- It is important that control and intervention villages not be located too close to each other. The reason is that we want to avoid at all cost a situation where (e.g.) deforestation is successfully stopped in the intervention village and spills over to the control village, or where incentive payments in the intervention village end up affecting the economy of the neighbouring control

village. In both these cases the value of the control is compromised and the research in this village has gone to waste.

- We also want to avoid a situation where the control village is at risk of becoming an intervention village at some point in the future. This might happen, for example, in a situation where people in the control village are envious of the opportunities being presented at the REDD+ project site and request to be included.
- It is possible that a candidate village can be located within the boundaries of a REDD+ project site. Recall that some villages within the project site boundaries will be targeted for REDD+ intervention and some will not (see questions 'c' and 'd' in Exercise 27 of the Proponent Appraisal Form).
- *But be aware that under some situations it will not be advisable to choose a candidate control village that is within the REDD+ project boundaries.* One reason is that some REDD+ policies will be implemented at the level of the project even if it is not specific to the village. Another reason is that the risk is probably higher of having a village shift from control to intervention status within project site boundaries than outside project site boundaries. And yet another reason is that the risk of leakage contaminating the control site is higher within the project site boundaries.
- If you believe there are local-level variables that better serve as a basis for matching villages than the 22 VSVs, then please use them. List them on the Village Appraisal Form and fill in information for all villages, both intervention and control. However, these extra variables should be viewed as *supplementary* to the 22 VSVs and not take their place. They should be viewed as a way to give great precision to the 22 variables. (For example, our VSV for tenure is coarse and there may be finer variables at the local level for matching similar villages.) The reason for retaining all 22 VSVs is that they will help ensure there is a common logic in the selection of villages across all project sites.
- Questions 19 and 20 in the form appear to be only for the REDD+ project site villages, but they are intended for all villages. Be aware that in some places there are efforts to control deforestation and degradation in all villages, not just in the bounds of the REDD+ project site.

### Getting started before going to the field

It is very important to become aware of possible data sources for filling in the Village Appraisal Form before going to the field. Such information might not be available once you go to the field. Among the possible data sources for the Village Appraisal Form are:

- extensive Internet trawling for project documents and information about the project including the project's websites;
- forest cover and socio-economic data for the project area from public sources;
- email requests to the proponent and other key informants for lists of project villages, census information, socio-economic surveys and other relevant material; and
- other secondary data sources e.g. district plans, poverty data and maps. (See the pre-test instructions for more suggestions.)

However, be aware that there will be limits to what can be accomplished before visiting the site during the pre-test period. Recall that proponent responses to Exercise 27 in the Proponent Appraisal Form are key to identifying candidate intervention villages, and these four villages must be identified before it makes sense to spend a lot of time compiling specific data on candidate control villages. But if you have at least identified the data sources for candidate control village information ahead of time, your workload will be eased once you have determined the control village parameters that you are aiming for.

### **Size and number of villages**

What is the size of villages that we should be aiming for?

At a minimum there should be 30 households in the candidate village because that is the number of respondents we are seeking in the respondent surveys. There will be some cases (e.g. in Bolivia) where there are villages that are smaller than 30 households. In those cases it will be possible to choose villages with fewer than 30 households. In those cases it will be necessary to increase the number of target villages to reach the desired number of households at intensive sites (120 intervention and 120 control households).

There is no maximum number of households in a candidate village. However, if the number of households in a village exceeds 200, it is advisable to select a hamlet (identifiable subunit) of the village rather than the whole village. In such cases, make it clear in the lists (Exercise 27 and Village Appraisal Form) that this is what you are doing.

### **Miscellaneous**

In the event that you encounter difficulties in making decisions, do not hesitate to find a way to communicate with the Field Research Coordinator, Subhrendu or William to give you guidance.

Don't forget to bring at least 32 copies of the Village Appraisal Form to the field—16 for intervention villages and 16 for control villages.

## Annex 2

<b>Village Appraisal Form</b>  <b>Global Comparative Study on REDD+, CIFOR, Indonesia</b>	
Candidate intervention village <input type="checkbox"/> ? Or candidate control village <input type="checkbox"/> ? <i>(Tick just one)</i>	
Village name	Village GPS coordinates
District	Related REDD+ project
Province/state	Person filling in form
Country	Dates form filled

Variable	Estimate	Source
1. Number of years since village was established	<input type="checkbox"/> <10 yrs <input type="checkbox"/> 20–50 yrs <input type="checkbox"/> >50 yrs	
2. Area within the village boundaries. <i>(in hectares)</i>		
3. Number of households in village.		
4. Main ethnic group.		
5. Primary income of majority of households. <i>Codes: 1 = agriculture; 2 = animal husbandry; 3 = forest; 9 = other (specify). Select just <u>one</u> code.</i>		
6. Percentage of households with > 50% of their cash income from forest.	<input type="checkbox"/> <20% <input type="checkbox"/> 20–50% <input type="checkbox"/> >50%	
7. Most common form of transportation used. <i>Select the <u>one</u> code that best describes what most villagers use on a daily basis. Codes: 1 = bicycle; 2 = motorcycle; 3 = horse, donkey, ox cart; 4 = car, van; 5 = bus; 6 = non-motorised boat; 7 = motorised boat; 9 = other (specify).</i>		
8. Distance from the village centre to the nearest road that can be used by a four-wheel motorised vehicle. <i>(in km)</i>		
9. <i>Ask this question only if the answer to No. 8 is &gt; 10 km.</i> Distance from the village centre to the nearest river or other body of water navigable for commercial purposes. <i>(in km)</i>		
10. Distance from the village centre to the nearest market for durable goods. <i>(in km and in minutes by most common means of transport used (see No. 7))</i>	_____ km  _____ min	
11. Approximately how many <i>functional</i> groups or organisations (e.g. farmer groups, water users association, credit/self-help groups, village education committees, forest user groups, women's associations) exist in this village? <i>By 'functional' we</i>		

Variable	Estimate	Source
<i>mean 'holds regular meetings'.</i>		
12. How many village meetings are held in a typical year? By 'village meetings' we mean meetings to which all households are invited.		
13. Which statement most adequately reflects government-recognised (statutory) forest tenure (property rights) for the people in this village? <i>Select just one.</i>		
<p>a. <i>Strong forest tenure for villagers.</i> At least a portion of village forests is under legally recognised tenure by ordinary villagers. This can be either ownership (villagers as rights holders) or government-approved access rights, and can be either common or individual holdings.</p> <p>b. <i>Weak forest tenure for villagers.</i> No portion of village forests is under legally recognised tenure by ordinary villagers. Local forests are wholly under the legal control of the government and/or by large private landholders.</p>	<p><input type="checkbox"/> (a)</p> <p><input type="checkbox"/> (b)</p>	
14. Percentage of village area covered by forest. <i>See definition of forest in technical guidelines.</i>		
15. Has a forest conservation NGO conducted work in the village in the past 5 years?	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	
16. Percentage deforestation rate in past 5 years. <i>Or other recent period. Specify the period if not 5 years: _____.</i>		
17. Relative level of deforestation and degradation in the past 5 years in the village compared to the mean for all project villages.	<p><input type="checkbox"/> Higher</p> <p><input type="checkbox"/> Average</p> <p><input type="checkbox"/> Lower</p>	
18. What are the main pressures on the village's forests? <i>Select all codes that apply.</i>		
<p>1 = Large-scale agriculture (for example, by agribusiness)</p> <p>2 = Large-scale ranching (for example, by agribusiness)</p> <p>3 = Large-scale plantations (timber, oil palm, etc.)</p> <p>4 = Small-scale traditional agriculture (for example, swidden by local inhabitants)</p> <p>5 = Small-scale frontier agriculture (for example, slash and burn by colonists)</p> <p>6 = Small or medium ranchers</p> <p>7 = Large-scale timber harvest (legal mechanised extraction by companies)</p> <p>8 = Large-scale timber harvest (illegal mechanised extraction by companies)</p> <p>9 = Small-scale legal timber harvest (low-technology, by small local operators)</p>		

Variable	Estimate	Source
<i>10 = Small-scale illegal timber harvest (low-technology, by small local operators)</i> <i>11= Subsistence fuel wood/charcoal collection</i> <i>12 = Commercial fuel wood/charcoal collection</i> <i>13= Non-wood forest products harvesting</i> <i>14 = Other, specify (forest fire, mining, etc.)</i>		
19. What are the forest intervention goals, if any? Codes: <i>DF = reduced deforestation; DG = reduced degradation; EN = enhanced stocks; AF = afforestation; NO = none.</i> <i>Select all that apply.</i>		
20. What is the forest intervention approach, if any? Codes: <i>CB = conditional benefit; IP = increased protection; AI = alternative incomes; NO = none. Select all that apply.</i>		
<b>For project villages only:</b>		
21. What is the stage of REDD+ progress in the village? Codes: <i>C = carbon reference level established;</i> <i>S = socio-economic appraisal/diagnostic/baseline;</i> <i>V = village meeting to inform about project;</i> <i>VC = village meeting to seek consent.</i> <i>Select all codes that apply.</i>		
22. Is this the village most likely to succeed in fulfilling the forest intervention goals in the project, according to proponent? <i>Select one: Y = Yes; N = No; RDNK: Respondent doesn't know).</i>		

**Annex 3****REDD+ PROJECT QUESTIONNAIRE (SHORT FORM)****Global Catalogue of REDD+ Initiatives**

The Center for International Forestry Research and North Carolina State University are building a global list of REDD+ initiatives. These include pilots, demonstration activities, 'readiness' programmes and private initiatives to generate off-set credits or obtain other carbon-based funding. We consider 'REDD+' to include all efforts to reduce carbon emissions and enhance carbon storage in forests, including reducing deforestation and forest degradation, promoting conservation and sustainable management of forests, enhancing forest carbon stocks, restoring and regenerating forest, and afforestation/reforestation.

We will use this information to (i) assess and report summary statistics on the evolving global landscape of REDD+ activities, and (ii) develop our study plan for a global comparative assessment of REDD+. In addition, CIFOR is developing a list of REDD+ initiatives that will be publicly available on the Internet. If any of the information that you provide here should NOT be used for the public list, please check the appropriate box requesting confidentiality. In those cases, we will only use that project-specific information internally at CIFOR and NCSU. Send comments and questions to: [sills@ncsu.edu](mailto:sills@ncsu.edu) and [llin@ncsu.edu](mailto:llin@ncsu.edu)

**Your contact information** (please write in gray boxes)

Your name:

Your email address:

Your phone number:

Your organisation:

Unit/ branch/ division of your organisation that handles REDD+ projects:

URL(s):

**May we follow-up with you to request further information?**☐ **Yes** ☐ **No*****For each project,***

1. Name of project:

2. Scale of project (check one):

☐ Multicountry: List countries:☐ National: Country:☐ Subnational: Country:



3. If subnational, please specify location in terms of administrative divisions of the country (e.g. states, provinces, regions):

4. Native forest type(s) in project area (click [here](#) for WCMC list of forest types):

Is the project area generally considered to have '*dry forest*'?

☐ All or most of area   ☐ Part of area   ☐ None of area

Is the project area generally considered to have '*peat soils*'?

☐ All or most of area   ☐ Part of area   ☐ None of area

5. Objectives of the project (check all that apply):

- ☐ Directly reduce carbon emissions from forests or increase carbon stocks in forests in a quantifiable way in a specific local area (i.e. site-level project)
- ☐ Incorporate forest carbon into land use policies and spatial planning at the landscape level
- ☐ Build institutions and capacity to participate in REDD+ (i.e. 'readiness')
- ☐ Other:

6. If one of the objectives is to directly reduce carbon emissions or increase carbon stocks in a quantifiable way (in a site-level project), how will this be accomplished? Please check all means by which the project will generate measurable or creditable reductions in net carbon emissions:

- ☐ Avoid/reduce deforestation
- ☐ Avoid/reduce forest degradation
- ☐ Restore, rehabilitate or enhance carbon stocks in existing forest
- ☐ Afforest, reforest or regenerate new forest
- ☐ Other:

7. If the project seeks to avoid/reduce deforestation or forest degradation, will this be accomplished mostly by:

- ☐ Changing the behaviour of actors who are currently deforesting or degrading the forest in the specific local area of the project?      If so, list key actors:
- ☐ Preventing or pre-empting anticipated future deforestation or degradation threats?      If so, list key threats:
- ☐ Other:

8. Please check any of the following activities that will be an important part of the project's strategy:

- ☐ Community forest management, or other community-based natural resource management
- ☐ Payments for ecosystem services (cash or in-kind rewards to households, communities or companies)
- ☐ Reduced impact logging and improved silviculture
- ☐ Reducing fuelwood use by promoting more efficient stoves or alternative energy
- ☐ Establishment of new protected areas

- ☐ Better monitoring and enforcement of forest laws and regulations
- ☐ Integrated conservation and development initiatives around protected areas

9. Please check all actions that have already been accomplished by the project:

- ☐ Sold any offset credits (including forward sales and all markets—CDM, CCX, etc.)
- ☐ Certified to at least one third-party standard (VCS, Gold Standard, CCB, PlanVivo, etc.)
- ☐ Obtained cooperation or recognition of some level of government (e.g. a signed MOU)
- ☐ Established a baseline (for carbon and/or for socio-economic conditions)
- ☐ Met with local communities and/or other stakeholders
- ☐ Selected specific location for project
- ☐ None of above

10. What do you think is the chance that this REDD+ project will start operations on the ground (e.g. planting trees, making payments for avoided deforestation, providing training in forest management) within 3 years—by the end of 2012?

- ☐ Almost no chance
- ☐ Low
- ☐ Medium
- ☐ High
- ☐ Already operating

## Annex 4

# REDD+ PROJECT QUESTIONNAIRE (LONG FORM)

I am gathering information on how REDD+ project sites are selected and which strategies are pursued to reduce net carbon emissions. Are you willing to answer questions about a REDD+ project for 20–30 minutes?

I would like to give you this consent notice that describes my survey and this brochure that describes the CIFOR study. This notice explains that I will keep your name and contact information confidential and separate from the information that you provide on a REDD+ project. I will use the information on projects for my dissertation, which will include maps of project locations, but otherwise will report the information obtained through these interviews only in aggregate form, summarised across regions or categories of projects.

I am collaborating with CIFOR's global comparative study of REDD+, and I will also share the information on projects with the research team led by Dr William Sunderlin. This research team is working on Component 2 described in the brochure. They are interested in the characteristics of projects, so that they can assess the evolving global landscape of REDD+ projects and place their study sites in context. They also have established protocols for maintaining the confidentiality of data that they are gathering on projects.

There are often questions about how we define 'REDD+ projects.' These are activities that seek to reduce net emissions of carbon

- By reducing deforestation and forest degradation, promoting the conservation and sustainable management of forests and/or enhancing forest carbon stocks (at least in part, i.e. not projects that focus exclusively on afforestation/reforestation);
- From a defined area (typically subnational, i.e. not national policy reforms and readiness activities);
- In a quantifiable manner (with intention to monitor, report and/or transact reductions in emissions or increases in carbon stock);
- Through activities with a reasonable chance of starting in the next 3 years.

**First, I would like to confirm your contact information:**

1. Name: \_\_\_\_\_

1.1 Email address (if have not already been in email contact):

\_\_\_\_\_

1.2 Organisation: \_\_\_\_\_

## 1.2.1 What type of organisation is it?

☐ Private non-profit:

Considered an environmental organisation? ☐ Yes ☐ No

☐ Private for-profit

☐ Public bilateral

☐ Public multilateral

☐ Government

☐ Other, please specify: \_\_\_\_\_

## 1.3 Unit/ branch/ division of your organisation: \_\_\_\_\_

## 1.3.1 Is this the unit/ branch/ division that handles REDD+ projects?

☐ Yes ☐ One of several ☐ No

If no, which unit/branch/division is responsible? \_\_\_\_\_

**Next, I would like to confirm some basic facts about the project. This is the only information that will be included in CIFOR's public list of projects.**

2. Name of project: \_\_\_\_\_

## 3. Scale of project:

☐ Multicountry: List countries: \_\_\_\_\_

☐ National: Country: \_\_\_\_\_

☐ Subnational: Country: \_\_\_\_\_

4. If subnational, please specify location in terms of administrative divisions of the country (e.g. states, provinces, regions): \_\_\_\_\_

5. Native forest type(s) in project area:

\_\_\_\_\_

6. Is the project area generally considered to have peat soils?

☐ All or most of area ☐ Part of area ☐ None of area

7. What is the primary goal or motivation for the project?

\_\_\_\_\_

8. Objectives of the project (check all that apply):

- ☐ Directly reduce carbon emissions from forests or increase carbon stocks in forests in a quantifiable way in a specific local area (i.e. site-level project)
- ☐ Incorporate forest carbon into land use policies and spatial planning at the landscape level
- ☐ Build institutions and capacity to participate in REDD+ (i.e. 'readiness')

9. If one of the objectives is to directly reduce carbon emissions or increase carbon stocks in a quantifiable way (in a site-level project), how will this be accomplished? Please check all means by which the project will generate measurable or creditable reductions in net carbon emissions:

- ☐ Avoid/ reduce deforestation
- ☐ Avoid/reduce forest degradation
- ☐ Restore, rehabilitate or enhance carbon stocks in existing forest
- ☐ Afforest, reforest or regenerate new forest
- ☐ Other: \_\_\_\_\_

**Now, I would like to ask some more detailed information about the project.** I will also share this information with CIFOR, but only with the research team for their global comparative study of REDD+ projects working under William Sunderlin.

#### **Project site**


10. Please specify location of project in terms of the smallest administrative units used for census data in the host country, e.g. municipalities or subdistricts:

\_\_\_\_\_

11. Do you know the coordinates? \_\_\_\_\_

12. What is the nearest town that we are likely to find on a map? \_\_\_\_\_

13. I have a list of factors that could influence where projects are located within countries. Please tell me on a scale of 1 to 5 how important you think each factor is for explaining the current distribution of projects in the region(s) that you are most familiar with. 1 means that the factor has practically no influence; 5 means that it is among the most important.

	<b>Factors</b>	<b>No influence</b>  <b>Among the most important</b>				
		1	2	3	4	5
a.	Level of forest carbon (per hectare or in total)	1	2	3	4	5
b.	Rate of ongoing deforestation/ degradation	1	2	3	4	5
c.	Threat of future deforestation/ degradation	1	2	3	4	5
d.	Potential for carbon accumulation	1	2	3	4	5
e.	Profitability of deforestation (low opportunity costs)	1	2	3	4	5
f.	Governance and rule of law	1	2	3	4	5
g.	Land tenure	1	2	3	4	5
h.	Tree tenure/ carbon property rights	1	2	3	4	5
i.	Replicability (i.e. potential for scaling up to other similar areas)	1	2	3	4	5
j.	Poverty rate	1	2	3	4	5
k.	Potential for community or poverty reduction co-benefits	1	2	3	4	5
l.	Potential biodiversity co-benefits	1	2	3	4	5
m.	Proponents have previous or ongoing conservation project	1	2	3	4	5
n.	Partner organisations	1	2	3	4	5
o.	Interest of funder or donor	1	2	3	4	5
p.	Others	1	2	3	4	5

14. Do you know the deforestation rate in this area?

☐ Yes, the deforestation rate is        %

☐ No

If not, please give the best estimate:

☐ <0% (reforestation occurring) ☐ <2% ☐ >2% per year

15. Within this area, will you select certain communities and/or forest stands to be targeted by project activities?

☐ Yes (proceed to Q15.1)

☐ No (skip to 16)

15.1 If yes, where are you in the process?

☐ Already selected ☐ Expect to select by March ☐ Not yet

16. What is the current status of the forest that will be affected by the project? Check categories that apply to at least one third (33%) of the project area.

☐ Relatively intact and untouched forest

☐ Degraded/ intervened/ managed forest

☐ Selectively logged

☐ Used for traditional shifting cultivation

☐ Agroforestry or plantation

☐ Deforested

☐ Other, specify: \_\_\_\_\_

17. In some countries, there are government classifications or zoning plans that define the legal uses of forest land. (For example, the official classification or zoning plan may designate areas without trees as forest land, or may designate land with trees for conversion.) If applicable, what is the legal classification or zone of the project area? \_\_\_\_\_

18. What are the most significant drivers of deforestation or degradation in the project area (now or expected in the near future)? Check all that apply.

☐ Large-scale agriculture and ranching (for example, by agribusiness)

☐ Large-scale plantations (timber or perennials such as oil palm)

☐ Small-scale agriculture (for example, slash and burn by local inhabitants)

☐ Large-scale timber harvest (mechanised extraction by companies)

☐ Small-scale timber harvest (low-technology, by small local operators)

☐ Fuel wood/ charcoal collection

☐ Other, specify: \_\_\_\_\_

19. What is the total project size? \_\_\_\_\_ ha

20. On approximately how many hectares does the project aim to:

- a) avoid deforestation or degradation of the forest? \_\_\_\_\_ ha  
 b) restore, rehabilitate or enhance forest carbon stocks? \_\_\_\_\_ ha

### Project participants

21. What organisation is the lead project proponent or developer (obtaining funding and planning on-the-ground activities)? \_\_\_\_\_

21.1 Is this the respondent's organisation?

☐ Yes (skip to Q22)

☐ No

21.2. Is this organisation

☐ Private non-profit

Considered an environmental organisation? ☐ Yes ☐ No

☐ Private for-profit

☐ Public bilateral

☐ Public multilateral

☐ Government

☐ Other, please specify: \_\_\_\_\_

22. What unit, branch or division of this organisation is responsible for this REDD+ project?

\_\_\_\_\_

22.1 Where is the headquarters of this unit, branch or division? (City and country)

\_\_\_\_\_

23. Prior to developing this project, did this organisation have other activities in the project area? ☐ Yes  
 (Proceed to Q23.1) ☐ No (Skip to Q24)

23.1 If yes, what was the primary objective of these other activities?

☐ Research

☐ Biodiversity/ environmental conservation

☐ Community development/ poverty alleviation

☐ Sustainable forest management

☐ Other, please specify: \_\_\_\_\_



24. Are there any independent researchers (e.g. doctoral students) or research organisations studying this REDD+ project?

☐ Don't know

☐ No

☐ Yes, please note research organisation and focus of research:

---

25. Please list other organisations that play key roles in this project:

---

26. Who do you consider to be the most influential/important/active organisations in REDD+ in the country where the project is located?

---

### Tenure

27. Who owns the land in the project site? Check all that apply.

☐ Protected area owned by government (national, regional or local)

☐ Owned by government but under concession contract with private firms or individuals

☐ Owned by government but local communities or associations have use rights or joint management rights

☐ Other area owned by government

☐ Communities or associations

☐ Private individual landowners

☐ Businesses or firms (ranches, plantations, logging)

☐ Other, please specify: \_\_\_\_\_

28. Is the project proponent (or some new legal entity created by the project proponent) buying the forest land for the project, acquiring a forest concession, or otherwise establishing ownership of the forest carbon in the project site?

☐ Don't know

☐ No: legal claim to carbon remains with forest owners or users

☐ Yes: does the proponent

☐ own or plan to purchase forest land for the project?

☐ own or plan to purchase the forest (trees only) for the project?

☐ hold or plan to acquire forest concession rights for the project?

☐ participate or plan to become party to a joint management system?

☐ other, please specify: \_\_\_\_\_

## 29. Reducing carbon emissions

*Direction:* In the table below, please list in the left hand column up to three major groups (e.g. small farmers, indigenous people, logging firms, concession holders) who **currently** use the forest or forest land in the region targeted by the project. Then in the second column, identify which of these groups are expected to change their forest/land use as a key part of the project's strategy for reducing carbon emissions. For each of these key groups, please indicate in columns 3, 4 and 5 how the project aims to change their forest use: a) cash payments or in-kind benefits conditional on changing their behaviour—i.e. a payments for ecosystem services scheme, b) increased enforcement of land use and forest regulations to stop illegal activities, and/or c) education, training and technical support for improved forest management and alternative livelihoods. If this is not yet decided, please indicate that you do not yet know (DK).

1. Stakeholder group	2. Expected to change forest use	3. Receive conditional benefits (PES)	4. Target of increased enforcement	5. Receive support for alternatives
1.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> DK

29.1 Are there additional groups beyond the three we have discussed?

☐ Yes ☐ No

30. In addition to the activities listed in the table above, does the project plan to pre-empt and prevent future deforestation or degradation threats by other actors that are not yet operating in the project area (for example, buying out concessions to prevent them from being awarded to timber companies)?

☐ Don't know

☐ No

☐ Yes: how will those future threats be forestalled? Check all that apply.

☐ Buy concessions (and retire, or hold as conservation concessions)

☐ Support creation of new protected areas

☐ Help local inhabitants defend land tenure claims

☐ Increase monitoring and enforcement

☐ Other, please specify: \_\_\_\_\_

**Project implementation**

31. Is the project being verified or certified through a third party? Check all types of carbon and/or forest certification that have already been obtained, or for which audits are planned in the next 12 months.

- ☐ VCS
- ☐ Gold Standard
- ☐ CDM/JI
- ☐ CCBA
- ☐ CarbonFix
- ☐ American Carbon Registry
- ☐ Social Carbon
- ☐ FSC
- ☐ Other, please specify: \_\_\_\_\_

32. Is there a PDD or equivalent document for the project?

- ☐ Yes
- ☐ In development and expected to be completed by March
- ☐ No

33. Is the plan to sell carbon credits from this project?

- ☐ No, not planning to sell credits
- ☐ Yes, voluntary (bilateral transaction, CCX, etc.)
- ☐ Yes, compliance
  - ☐ US
  - ☐ Other (international, European, etc.)
- ☐ Other, please specify: \_\_\_\_\_

34. If the plan is to sell carbon credits from this project, are these expected to cover the full cost of the project?

- ☐ Yes, carbon revenues are expected to cover operating costs in the future
- ☐ Yes, carbon revenues are expected to cover both operating costs and the initial investment in the project
- ☐ No, carbon revenues are expected to supplement, but not cover full costs

35. Does the project proponent have committed start-up funding—for example, an internal or external grant for carbon project, budget line allocated to REDD+ development, up-front investment or forward contract for offset credits?

- ☐ No
- ☐ Yes
- ☐ Applied

36. Does the project proponent have a signed agreement (e.g. MOU) with the government of the country where the project is located?

☐ No

☐ Yes, which level(s) of government? \_\_\_\_\_

37. Has the carbon baseline for this project been established?

☐ Yes

☐ Not yet, but expected within the next six months

☐ No

Thank you.

**Annex 5**

# **Instructions for Proponent Appraisal Form**

## **REDD+ Project Sites**

### **Global Comparative Study on REDD+**

#### **Center for International Forestry Research (CIFOR), Bogor, Indonesia**

#### **Objectives of the survey**

- An initial reconnaissance exercise to plan the rest of the research.
- To identify the other stakeholders who should be interviewed.
- To identify which elements of the project are still in the design phase, which are underway and which are completed.
- To collect basic information on the project and project site which cannot be collected from secondary sources or by telephone.
- To collect village information to enable the selection of a sample of villages for CIFOR's research.

#### **Timing**

- The secondary data collection for the proponent appraisal can be started as soon as the project site has been selected.
- Before going to the field secondary sources should be consulted, and email communication with the proponent should be established.
- The interviewing for the proponent appraisal will be carried out at the start of the pre-testing stage in the intensive sites, and in the early part of the survey phase in the extensive sites. In both cases this will be before study villages have been selected.
- It will not be repeated in the rest of the research process but will be followed up by 'implementer' surveys with a range of organisations relevant to the implementation of the project

#### **Respondent and data sources**

- The main 'respondent' will be someone in the regional/local office of the key proponent who has decision making and oversight authority over the REDD+ project. The interviewer should at all costs find the best project representative to respond.
- In addition, the MRV person for the project must be consulted in order to obtain accurate information on carbon reference levels and MRV.
- The person responsible for the socio-economic baselines should also be consulted.
- These individuals are not always at the project site so it is advisable to contact them well in advance of the interview to check their plans and if necessary to arrange to interview them elsewhere.

- In some situations the proponent (organisation with official responsibility for the REDD+ project) is different from the initiator. In this case the form is to be addressed to the organisation/people who know most about the project site in question.

### Data collection process

The following survey form outlines the information which the FRSs should aim to collect. In order not to overburden the respondents it is important that an extensive secondary data search is carried out before the interview to collect as much of the information from secondary sources as possible. This will involve:

1. extensive Internet trawling for project documents and information about the project including consulting the project's websites.
  2. reviewing information in CIFOR's project characterisation database, though it should be recognised that the local/regional proponent representative is likely to give different answers from the national/ international representative whose answers are in the database.
  3. sending email requests to the proponent and other key informants for relevant written material including project documents, reports on previous surveys, funding proposals and documentation for certification (PDD), maps (including location of the project villages) and the MOU (or signed agreement).
  4. downloading forest cover and socio-economic data for the project site from public sources and requesting this information from proponent or other organisations.
  5. finding out if the REDD+ project has conducted a survey of villages and households and has written a report based on those data.
- The survey form should not be circulated to the respondent. Prior to the interview an outline of topics should be sent.
  - Following the secondary data exercise, specific information requirements should be sent to the respondents prior to the interview.
  - Some information which can be gained from secondary sources should be double-checked with the respondent.
  - Sources of the information should be noted in all cases and all references must be cited appropriately.

### Clarification on project site

- Some REDD+ projects operate in different 'sites'—i.e. geographically discontinuous areas with significantly different drivers of deforestation and plans for implementation. In cases where there is more than one project site, it is important that the FRS explain to the respondent that we are seeking information only about our target site and not the entire project area. In addition, some REDD+ proponents may operate administratively separate projects in the same site, e.g. projects funded by different sources but implementing the same activities in the same place. *In cases of ambiguity, please be sure to contact your country representative and Erin Sills*

*(responsible for REDD+ project information) for clarification on what area and what activities to consider for our study.*

### **Confidentiality**

- At the start of the interview it should be explained that our primary objectives are i) to understand the project context better and ii) to get specific information on project villages in order to make our sample selection.
- Nevertheless, we are also collecting some data for research purposes. If there is any particular answer that they do not want disclosed to the public, they should make that known to us. Otherwise, we will assume this information can be reported in our research and on our website on forests and climate change.
- If they would like to opt for 'confidentiality', the answers they wish to be kept confidential will be shared only within CIFOR's Global Comparative Study on REDD+, and only by people entrusted with handling confidential data.
- In our research reports we plan to report confidential data in aggregated form (e.g. all sites in Latin America or all sites in Indonesia) in such a way that it cannot be traced to any particular project or project site.
- It should be made known to the respondent that at some point we may come back to them to ask if particular pieces of confidential information remain confidential. We recognise that some information becomes less sensitive over time.
- In some cases, respondents will choose confidentiality not because the information is sensitive, but because they are unsure of its accuracy. Be attentive to this possibility. In cases where respondents will make information public as long as they have an opportunity to confirm it, please give them the opportunity to do so.
- The FRS should also alert them about the confidentiality option ahead of time by email so they have time to consider it.

### **The interview process and coding**

- The FRS should read through, and be familiar with, the form and the objectives of the interview before starting the interview. The form is not designed to be read out verbatim. Rather it should be used as a protocol and checklist of information which needs to be gathered.
- Most questions can be asked in an open-ended manner. When the code to be applied is not clear from the answer, the FRS should probe further to explore which code might apply. If none of the suggested codes applies, the FRS should create a new code. You are more likely to get the required information by conducting this interview as a conversation—partly because projects are in their early phases and respondents may not be very comfortable being immediately pinned down to precise answer categories.
- Where codes are provided, unless marked otherwise, codes should not be read out to the respondent but ticked off according to the respondent's answer. If no suitable code has been provided it should be added to the list.
- The FRS should ask follow-up questions which are not listed where necessary and relevant.

## Referencing

As there are likely to be multiple sources for the information in this form we suggest that the following line should be filled in for all the relevant questions:

Reference:	Res. 1 (initials):	Res. 2:	Confidential (Y):

1. Reference: should include the secondary sources
2. Res. 1 and Res. 2 should be the initials of respondents
3. The confidential box should be marked with a 'Y' when the respondent requests for this information to be confidential to the project team only. If the box is blank, it is assumed the information is not confidential.

## A note on Exercise 20: Collecting information on project zones

- The aim of this exercise is to understand the different zones in the project, how the project characterises these zones and what criteria or categories the zones are based on. By zone, we mean any way that the project divides the site up into different areas or sectors for project planning purposes.
- The table in this exercise has purposefully been left blank for the FRS to fill in along the top those characteristics which describe the way in which zonation occurs at the project site. For example, are there distinct zones with different types of forest and deforestation rates and pressures? Or are there distinct zones with different types of human settlements, tenure and use of the forest?
- It is recommended that this exercise is done accompanied by a pre-existing map of the project site or, if this is not available, that a sketch map is constructed during the discussion.
- In some projects—especially those that cover relatively small areas—there may not be different zones.
- The FRS should ask the respondent to name the major zones (fill in these in the left-hand column) and key features of the zone (fill in across the top line of the table).
- Examples of ways in which the project site may be zoned (*and therefore the characteristics which should go across the top line of the table*) include features such as forest type, % forest cover, accessibility, 'main pressures' (see codes), deforestation rate and ownership of the forest, etc.



- An example of the table headings is provided below:

Major zones	Area (ha or %)	Main pressures (codes)	% forest cover	Accessibility (e.g. mountains or flooding)	Ownership
1					
2					

### A note on Exercise 27

The aim of Exercise 27 is to collect information on project implementation at the village level. This will serve as the basis for selecting villages in conjunction with the Village Appraisal Form. In the event that the number of project site villages exceeds 16, it will be possible to narrow down the scope of the list. See the instructions for narrowing down the scope on page 2 of the instructions for the Village Appraisal Form, and also in the introduction to Exercise 27.

Why do we have two separate lists for candidate villages: Exercise 27 and the Village Appraisal Form? The questions in Exercise 27 are to be addressed to the proponent, concern only the project site villages and are focused on the implementation attributes of the REDD+ project villages. The Village Appraisal Form is meant for compiling information on both intervention and control villages, and includes questions related to 22 village selection variables (variables that serve to match intervention and control villages).

Note that questions 'a' to 'f' in Exercise 27 are the same as questions 17–22 in the Village Appraisal Form. The answers to questions 'a' to 'f' in Exercise 27 will be transferred to the Village Appraisal Form (one form for each candidate intervention site). The information for questions 1–16 will then be filled in. The completed forms on candidate intervention villages will serve as a basis for finding matches with completed forms on candidate control villages.

## Annex 6

# Scale of Housing Materials

## Global Comparative Study on REDD+

### Component 2 on REDD+ Project Sites

Center for International Forestry Research (CIFOR), Bogor, Indonesia

Basic information			
Country code	<input style="width: 90%;" type="text"/>	REDD+ project site code	<input style="width: 90%;" type="text"/>
Province/state name	<input style="width: 90%;" type="text"/>	District name	<input style="width: 90%;" type="text"/>
Village name	<input style="width: 90%;" type="text"/>		
Intervention village?	<input style="width: 40%;" type="text"/>	or control village?	<input style="width: 40%;" type="text"/> <i>[check just one]</i>

Task	By whom	Date
Creation of scale		
Data entry in country of research		
Verification of accuracy by FRS		

Table on scale of value of housing materials used in the village		
Part of house	Scale of values	Materials corresponding to value scale
1. Floor	1 = low	
	2 = medium	
	3 = high	
2. Walls	1 = low	
	2 = medium	
	3 = high	
3. Roof	1 = low	
	2 = medium	
	3 = high	

See the back of this sheet for the purpose of the table and instructions on how to fill it in.

## Purpose

The purpose of this table is to build a village-specific scale of the values (low, medium, high) of materials used in the construction of houses in the village. This will serve as one of the various indicators of the relative wellbeing of households in the village.

## Instructions

- Upon arrival in the village take a walk around and observe the houses and the main materials used for the floors, outer walls and roofs.
- Make a preliminary list of the various main materials used for the floors, outer walls and roofs and classify these into low, medium and high values.
- The table below can serve as a general guideline for classification. Note that: the **low** value will generally mean no or low value added (e.g. a dirt floor) or local biotic materials (e.g. a thatch roof); the **medium** value will generally mean local materials with some value added (e.g. locally sawn and processed boards); and **high** value will generally mean non-local materials with higher value added (e.g. ceramic tiles for the floor, brick walls and a ceramic tile or metal roof).
- *Produce a scale that makes sense to you. Do not follow the model below slavishly. For example ceramic tiles and bricks might be made in the village, in which case you will have to decide where those materials fit best on a relative scale of value.*
- Verify your assumptions by talking with one or two key informants. If you are doing the village survey before the household survey, you can verify your assumptions in that meeting.
- Once your assumptions have been verified, fill in the table on the front of this sheet and use it as your source of codes for answering Table 2C in the household survey.

	Low	Medium	High
<b>Floors</b>	No/little value added: <i>e.g. dirt</i>	Local materials Medium value added: <i>e.g. local wood boards</i>	Non-local material High value added: <i>e.g. ceramic tiles</i>
<b>Walls</b>	Local biotic materials No/little value added: <i>e.g. leaves, poles, bamboo</i>	Local materials Medium value added <i>e.g. local wood boards</i>	Non-local material High value added: <i>e.g. masonry</i>
<b>Roof</b>	Local biotic materials No/little value added: <i>e.g. thatch</i>	Local materials Medium value added: <i>e.g. local boards or wood tiles</i>	Non-local material High value added: <i>e.g. metal, ceramic tiles</i>

## Annex 7

# Valuation and pricing

These instructions on how to estimate the value of home consumption goods, in cases where market prices are not readily known, are quoted directly from the technical guidelines of CIFOR's PEN (Poverty and Environment Network) project ([http://www.cifor.cgiar.org/pen/\\_ref/home/index.htm](http://www.cifor.cgiar.org/pen/_ref/home/index.htm)).

'It is not uncommon, especially in more remote areas, that the majority of goods produced and collected by a household are destined for consumption directly by the household (auto-consumption, or subsistence consumption). Thus, there is no explicit market price for valuing the consumed quantities of goods, but still we need to assign an implicit price in order to calculate the value and compare 'apples and oranges'. The selection of pricing method can make a large difference in terms of our overall income results. It is thus a key issue to think about carefully, requiring some economic reasoning and a lot of common sense. **This is an issue you always need to consult with your PEN advisor and/or coordinator!** The applicable methods are, in rough order of priority:

1. **Farm-gate (local) prices:** As a default rule, one should use farm/forest gate or local market prices (i.e. within village), if available. Exceptions are if these markets are extremely 'thin'—they are only traded exceptionally compared to a large share being consumed (say, less than 10% of the total), so that the available price gives a biased picture of local value.
2. **Barter values:** The barter value is the implicit value from trade with a market commodity. **Example:** If one kg of mushrooms is usually exchanged between households for 2.5 kg rice, which has a market price of 20 shillings, then the monetary value of mushrooms is 50 shillings per kg.
3. **Substitutes:** When trade (either in a market or through barter) is not common, one can find the implicit value by considering a close substitute that has a local market price.  
**Example:** Dung is being used for fuel together with firewood, and there is a market for firewood but not for dung. The question is then (asked a few households or in a focus group meeting): what would be the costs of buying firewood that would yield the same amount of energy as one unit of dung?
4. **Willingness to pay:** Asking respondents about their willingness to pay is a common method in environmental economics under the heading of 'contingent valuation' (CV). Doing a proper CV would take too much time, and a collective CV is therefore suggested: Get a group of villagers together and ask them about their 'willingness to pay' for the particular product. One can use either monetary units or the equivalent in the staple food.  
**Example:** There is no market for firewood, and rice is the staple food. The villagers are then asked: 'How much rice will you give me for one headload of firewood?' Ask them to reach a consensus price.
5. **Distant markets prices:** Prices at more distant market deducted for transport costs can also be used. One problem with this approach is that the price net of transport costs might become negative. That might in fact be the reason for the non-existence of a local market!

**Example:** There is no local market for charcoal in the village, but a bag is sold at 200 shillings in the district capital. If the transport cost is 50 shillings, the price to be used in the survey is 150.

6. **Value of time:** The time used multiplied by local daily wage rate (serving as the shadow value of labour) can be a measure of the value of the product. But this approach also raises some problems: (i) exact measuring of the time spent (including problems of 'multitasking', e.g. collecting firewood on the way home from an agricultural field), and (ii) determining the opportunity cost of labour (who does the forest product collection in the household, peak-slack season, opportunities in the labour market, etc.). (iii) It is implicitly assumed that the resource as such fetches no 'rent', i.e. it has no value beyond the labour used to collect it, which will only hold for marginal or inferior products.

**Example:** If the husband goes for two days to collect 10 kg of mushrooms, and alternatively could have sold his labour in the casual labour market for 15 shillings a day, the minimum price per kg mushroom should be set to 3 shillings:  $(2 \times 15) / 10$ .

One should note that the same product may be sold at different prices, especially depending on season. Both agricultural and forest products tend to be subject to accentuated fluctuations in prices. This will be captured by doing the quarterly income surveys in PEN, and it is important to ask explicitly about prices in each survey (and not use the ones from the previous quarter).

Another issue is when the products are sold in different markets, e.g. firewood sold dearly to traders but cheaply to fellow villagers. One should in those cases report an average price.'

## Annex 8

# Outline for update of site narrative

## 1. Background on Project Area

The following information should be included in your final report on the project. Refer back to your site narrative and your field notes. If you did not complete a site narrative as part of the pre-test phase, then please address the questions that appeared in the site narrative instructions (see Section 4.7 on Site Narrative). These questions are:

- a. What are the drivers of deforestation and degradation at the site?
- b. Does the proponent have an appropriate understanding of the drivers of deforestation and degradation at the site?
- c. Does the proponent have an appropriate plan (structure of incentives to change the behaviour of stakeholders)?
- d. Does the proponent have the capacity (financial, expertise, etc.) to implement this plan?

If you did write a site narrative, please revisit the information you collected and make sure it is complete and that you have included any new insights from the fieldwork. If you do not already have this information, collect from local statistical offices, key informants, or—if you are lucky—download from the statistical agency's website! Always specify source of estimate, year(s) and administrative unit.

**1.1 Economy** What are three most important commodities (goods produced and sold, e.g. specific crop, mineral, forest product or service) and what is best estimate of total value of production of each of those commodities in 2009 (or 2008) in the administrative unit that most closely corresponds to the project? Specify source of estimate and administrative unit.

**1.2 Demography** What has been the population growth rate in the administrative unit that most closely corresponds to the project in the past decade? Has there been significant migration into this area in the past 10 years? If so, describe what you know about this migration, including from where/ what ethnicity? Temporary or permanent? What draws people? Has there been any notable increase or decrease in the past 2 years?

**1.3 Roads** Have new roads been constructed in the project area in the past 2 years? If yes, approximately how many kilometres? Note whether any of these new roads have improved access to study villages.

### 1.4 Planned deforestation

- a) Describe who has decision making power over land use decisions in this area, both formally and informally. For example, what agency at what level of government makes zoning or other the official land use plan? To what degree does that plan actually influence land use?

- b) Note when the next official land use planning or zoning process is scheduled (if relevant).
- c) Are parts of the project area zoned, leased or otherwise officially designated for either commercial timber harvest or conversion from forest to some other land use? If yes, describe the size of area planned for timber harvest or conversion to different commodities. Indicate if it overlaps with any of the sample villages. List names of firms or individuals who hold the timber or conversion rights in each study village. Indicate where (e.g. what government agency) information on leases or concessions could be obtained.

### **1.5 Tenure conflict**

- a) Describe the level of conflict over land and natural resource property rights in the project area. Specifically, note whether severe conflicts in the region are typically signalled by physical violence (e.g., assassinations), property destruction (e.g. fire), and/or 'social disturbances.' Then note how many of these events have occurred in the project area in the previous 2 years.

## **2. The REDD+ context**

Your final report should also include a brief description of REDD+ in the region where your project is taking place. We expect that you will learn about REDD+ from both formal and informal interviews with the proponent and other key informants, as well as discussions with government officials while you are collecting research permits, news items that you read in the local media, etc. As you learn about REDD+, look specifically for information on the following:

### **2.1 Carbon allocation rules**

- a) What is your best understanding of the rules governing rights to carbon revenues generated by the project?
- b) Is there clarity and agreement on these rules?
- c) What is the legal basis for the rules (national legislation vs. ministry regulation vs. local government decree)?

### **2.2 History and knowledge of REDD+**

- a) Who were the very first organisations or individuals to get involved with REDD+ in this project area, and when was this? Describe the early history and process of REDD+ in this region, e.g. was it first introduced by the private sector, social movements, environmentalists, an individual, the government, other?
- b) What month and year was the project (which you are studying) 'initiated'? Indicate what marks 'initiation' of the project—for example, is this the date that PIN was submitted?
- c) Are there vocal opponents of REDD+ in the project area? If yes, list all types: grassroots organisations, press, government agencies, NGOs, private sector. What are the main reasons for opposition?
- d) Has there been any widely seen/heard/read media coverage (including both news and entertainment media) of REDD+ in the project area? If yes, briefly describe—e.g. was it generally positive or negative? Would you characterise it as broadly accurate or misleading?
- e) Has REDD+ been featured in election campaigns or other political events in this area? If yes, briefly describe.

### 3. Details on the study villages

Your final report should also include updated information on the study villages, including how they relate to the overall project area, how they were selected/ targeted by the project, and what activities started taking place in the villages while you were in the field (if any).

**3.1 Project area – village scaling factors** Review the PA and VA to confirm that you have consistent estimates of total land area, total forest area, and total population for the entire project area, entire intervention area (in cases where REDD+ interventions are taking place in only part of the project area), and each study village. ‘Consistent’ means using the same units, same definition of forest, and referring to the same year.

#### 3.2. Project activities

a) How and why were these villages selected to participate in the project?

b) What project interventions have already taken place in the three study villages, or are planned to begin before 2011? Provide a timeline of activities in each village.

#### 3.3 Update of village appraisal

a) The village appraisal asked if a forest conservation NGO had conducted work in the village in the last 5 years? Please provide details on any such conservation efforts in the study villages in the last 5 years.

b) The village appraisal also asked for your best estimate of the percentage deforestation rate in the village in the past 5 years. If you have come across a better estimate or learned of another researcher or organisation that might have such an estimate, please describe.



**Annex 9**

# MEMORANDUM OF COOPERATION

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**BETWEEN**

**The Center for International Forestry Research (CIFOR)**

**AND**

**{PARTNER} (*organisation establishing REDD+ project, aka the proponent*)**

This Memorandum of Cooperation sets forth the **good faith agreement** of the Center for International Forestry Research ('CIFOR') and {\_\_Partner\_\_} to include {\_\_Project\_\_} in {\_\_State/ Province, Country\_\_} in the Global Comparative Study of REDD+ ('GCS'). The mutual goal of the parties is to enhance understanding and implementation of REDD+ at the subnational scale and to inform future REDD+ policy at the international and national scale.

CIFOR is an autonomous non-profit research organisation headquartered in Bogor, Indonesia, whose mission is to advance human wellbeing, environmental conservation and equity by conducting research to inform policies and practices that affect forests in developing countries. CIFOR is one of the 15 Centres supported by the Consultative Group on International Agricultural Research (CGIAR).

{{Partner}} is ... optional section, if partner would like to include brief description of their organisation, mission, location, etc.}

This agreement **benefits both parties**, most importantly by providing credible, independent research on the implementation and impacts of REDD+ projects. This requires applying a consistent framework and methods across multiple countries and years. To ensure accurate and complete understanding of project implementation, {Partner} will facilitate CIFOR's access to information over the expected three year period of research. The GCS in turn will serve as a valuable independent source of feedback on project progress. CIFOR expects to partner with {Partner} and other participating proponents to create mechanisms for developing, disseminating, and sharing information on project implementation and assessment. Specifically, CIFOR anticipates providing information to fill gaps in local information and skills on MRV of carbon, and sharing methodological lessons and refined research instruments for quantifying the socio-economic impacts of REDD+.

The **first phase** of the GCS involves gathering information from project proponents and pre-testing research instruments in areas near projects by 31 March 2010. {Partner} agrees to provide information on the project and villages included in the project area, to advise GCS research staff on conduct of the pre-test, and to review all research instruments during this time period. CIFOR places great value on feedback from proponents and from pre-testing in areas representative of the different projects. {Partner} recognises that the GCS must employ uniform methods across projects and countries, which will constrain CIFOR's ability to incorporate all feedback from all sites. CIFOR and {Partner} agree that close cooperation is critical to prevent misunderstandings about purpose or methodology of research, and thus it is important for the {Partner} to review and clarify any doubts about CIFOR's research instruments.

The **next phases** of the GCS include surveys in the project area between May and July 2010. This will include questions about household and village livelihoods, forest use, and perceptions and knowledge of REDD+. CIFOR will take maximum precautions not to raise expectations, create misunderstanding, or in any way undermine {Partner}'s efforts to disseminate accurate and appropriate information on REDD+ in the project area. CIFOR tentatively plans to report back to {Partner} and study villages on this initial phase of research and to assess project implementation sometime in 2011, and then conduct follow-up surveys to assess implementation and short-run impacts in 2012. The parties agree to support this follow-up research, which is critical to the goals of the GCS.

Throughout the research, CIFOR will **keep {Partner} informed** of the progress of the research. Specifically, GCS staff will provide research instruments to {Partner} for review, seek {Partner}'s advice and give advance notice of research activities, and provide advance copies of research reports and publications to {Partner}. While {Partner} has the right to review and comment on research findings prior to publication, neither {Partner} nor {CIFOR} have the right to censor in any way the publications and research outputs of each other.

CIFOR will absolutely guarantee and **guard the anonymity** of household and village respondents to research instruments. Within the constraints of protecting respondent anonymity and respecting respondent concerns about confidentiality, CIFOR will share data with the {Partner}.

CIFOR will obtain prior informed consent from all households and appropriate representatives of villages involved in the research. CIFOR will collaborate with {Partner} to return research results to those local communities, including both an interim report and a final report after completion of the GCS.

During pre-testing, standards will be developed for the specific protocols, timeframes, and portions of **data to be shared** with proponents of GCS projects in {Country}. Over the course of the GCS, the parties anticipate that there may be opportunities for {Partner} scientists to become substantively involved in data analysis and interpretation, potentially resulting in publications co-authored with CIFOR scientists. Any such arrangements must preserve the independence of the research. For scientific reasons, it is vital that GCS be recognised as impartial, unbiased and independent by both survey respondents and the policy audience.

{Partner} agrees to **support the GCS** by reviewing research instruments, providing full information about project implementation, sharing carbon accounting, and facilitating tracking and quantification of full project costs. {Partner} will not discourage or interfere with other stakeholders' responses to GCS.

{Partner} and CIFOR agree on the importance of **avoiding research fatigue** in project area. Subject to confidentiality constraints noted above, {Partner} and GCS will share data in order to avoid redundant data collection. {Partner} further agrees to steer any other research and/or diagnostic studies away from specific study villages selected by CIFOR, to the extent possible.

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Dr William Sunderlin

Global Comparative Study on REDD+

Center for International Forestry Research

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{Name}

{Position or Programme}

{Partner organisation}

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Date

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Date

**Annex 10**

## **Guidelines to Accompany the Memorandum of Cooperation between CIFOR and Partner in research on REDD+**

In an effort to determine a proper balance between an independent research and service role, CIFOR offers the following guidelines meant to accompany the Memorandum of Cooperation between CIFOR and the partner organisation.

**Data sharing**

CIFOR will share research data with the partner once data have been entered and reviewed for accuracy. CIFOR intends to make data from the first round of surveys available in early 2011. Data sharing is subject to confidentiality constraints (See below).

At some point in the future, CIFOR expects to make the data available to the public, subject to these same confidentiality constraints. This will be after CIFOR has collected follow-up data and published based on the data. Prior to this public release of the data, CIFOR requests that the Partner:

- not publicly post or share the data with anyone outside of the partner organisation;
- not share results of the data with anyone outside of the partner organisation unless approved by CIFOR; and
- not publish the data or any analysis of the data in the scientific literature.

After CIFOR has publicly released the data, CIFOR requests that the partner acknowledge CIFOR in any publications produced on the basis of the data.

As mentioned in the MOC, co-publishing is a possibility, and is in fact recommended if any of the CIFOR research data or analysis are to be published in-country.

CIFOR will provide the partner with a brief report summarising the most important research findings, once in 2011 (reporting on the baseline research) and once in 2013 (reporting on the follow-up research).

If CIFOR researchers identify important problems in the implementation of REDD+ at the project site, they will inform the partner promptly. CIFOR reserves the right to determine what constitutes an 'important' problem.

## **Confidentiality**

CIFOR will maintain confidentiality by guaranteeing the anonymity of all villager respondents (i.e. respondents to household, village and gender surveys, and the like). This is essential for: 1) assuring the safety and wellbeing of respondents; 2) assuring the free flow of information; and 3) assuring that CIFOR maintains its role as an independent research organisation.

In practical terms guaranteeing confidentiality means:

- stripping all household identifiers from the data before sharing;
- stripping village identifiers if it is judged there is a need (see below); and
- only CIFOR researchers may be present in research interviews where villagers are respondents.

Under conditions of contestation or conflict where household respondents are especially vulnerable, CIFOR reserves the right to remove village identifiers from the data. Moreover, under conditions of unusual vulnerability, CIFOR reserves the right to withhold some portions of the data and findings (even stripped of household and village identifiers) if it is judged that doing so would harm the interests of household respondents.

Although guaranteeing confidentiality is a cornerstone of CIFOR's approach to research, this will not stand in the way of involving the partner in the research in a variety of ways, e.g. through consultation on identification of candidate villages and on sampling procedures.

## **Accompaniment**

Accompaniment of CIFOR researchers by the partner to destinations is permitted. However, as noted above, members of the partner organisation may not attend field research interviews.

In cases where the partner requests capacity building and training in research methods, this should be accomplished through a workshop conducted by CIFOR, and not through accompaniment in the field.

## **CIFOR independence**

A hallmark of CIFOR research is independence, impartiality and integrity. In order to safeguard that reputation CIFOR must establish and maintain institutional separation from the partner both in form and in substance. This is essential for maintaining the free flow of reliable information from respondents. As noted above, this does not preclude collaboration in various forms.

In practical terms assuring CIFOR's independence means:

- as above, members of the partner organisation do not attend research interviews conducted by CIFOR;
- as above, CIFOR promises to guard the confidentiality and anonymity of villager respondents; and
- CIFOR will not become a party to any contestation or conflict that may arise between the partner and local stakeholders.





[www.cifor.cgiar.org](http://www.cifor.cgiar.org)

[www.ForestsClimateChange.org](http://www.ForestsClimateChange.org)



#### Center for International Forestry Research

CIFOR advances human wellbeing, environmental conservation and equity by conducting research to inform policies and practices that affect forests in developing countries. CIFOR is one of 15 centres within the Consultative Group on International Agricultural Research (CGIAR). CIFOR's headquarters are in Bogor, Indonesia. It also has offices in Asia, Africa and South America.

