

## Training materials for community monitors in the Oddar Meanchey Community Forestry REDD+ Project



## **Introduction and Overview of the training materials**

These training materials are to help community monitors understand the information needs of the Oddar Meanchey REDD+ Project and carry out their project monitoring activities. The materials provide an overview of the key monitoring activities that community monitors will be involved in. After an introduction to monitoring, a summary of the various project activities is provided, to help the monitors better understand the importance and need for project activities and how these activities should be monitored.

In this REDD+ project, third party verifiers will assess project performance every two years. Without an effective monitoring system in place, and the supporting data it provides, verifiers may not be able to certify carbon credits, which could affect the financing of the project. Therefore, the work of community monitors in performing data collection and monitoring functions is a crucially important project activity.

### **Box 1: What is REDD+?**

Reducing Emissions for Deforestation and Degradation (REDD+) is a global initiative to cut greenhouse gas emissions associated with climate change by reducing the destruction and degradation of forests. Under this scheme, developing countries will receive payments for conserving their existing forests.



## **Introduction to Community Monitors**

- Two community monitors will be selected from each CFMC (one male, one female)
- Community monitors will be selected by the CFMC, they do not have to be CFMC members
- Monitors will play a crucial role in monitoring and reporting on all aspects of the project at the CF level (CF meetings, forest patrols etc)
- Community monitors will receive training, materials (GPS, Camera) and will be paid a monthly stipend for their work (depending on budget approval from FA)

## **Benefits/rationale for community monitors**

- Community monitors will play a key role in proving that community actions are having an impact on reducing deforestation
- Community monitors will allow the community to have inputs what is being monitored
- Community monitors will gather data that will assist the CFMC and CF members manage CF areas

- The community monitor system allows for community members to receive training and improve their capacity and skills

**Activities and Responsibilities of the community monitor**

- Join activities in the CF (forest management, meeting, training)
- Collect information/data, share, and store properly
- Give information to the CFMC, CF members and other stakeholders
- Guarantee the data quality



**What is monitoring**

**Monitoring definition:**

‘Systematic and ongoing process of information gathering over the lifespan of the project which leads to regular assessment of objectives that enables adjustments to be made’ (WWF 1996, 212).

We monitor to:

- Assess performance
- Record change
- Identify problems in operations
- Identify best practices
- Improve operations and increase the chances for success
- Demonstrate success



**Monitoring is carried out in the following steps:**

1. Planning: deciding what to monitor and how to do it. An important part of this is understanding what the project is about
2. Collecting the monitoring information
3. Analyzing or making sense of the information
4. Reporting and using the information



**Participatory monitoring** is when project stakeholders including community members and project staff are involved in the different stages of monitoring. This includes stakeholders deciding what will

be monitored and evaluated, how the information will be collected, what the results mean, and in using the results. For example, in the case of patrolling, communities could be involved in:

1. *Planning, deciding what to monitor and how to do it - deciding to conduct a patrol and monitor illegal activities in the CFs*

2. *Collecting monitoring information - Conducting patrols and recording this information*

3. *Analyzing or making sense of the information - Discussing CF issues at meetings and forum, using patrolling reports to decide on patrol routes*

4. *Reporting and using the information - Gaining support from the authorities about issues in the CF, showing people from outside what is happening*



**Experiences with REDD+ projects abroad have shown that communities can play a key role in project monitoring. Some of the benefits of community monitoring include:**

- Sharing local forest knowledge – e.g. tree species, wildlife
- Important opportunity to provide training and skills to CF members, build local capacity e.g. community monitors
- Local communities can feel more ownership and control over the monitoring system and better understand it
- Local communities can gather and monitor data that is more relevant and useful to them e.g. amount of NTFPs
- Can provide employment to CF members – improve livelihoods
- Allow CF members to conduct adaptive management – gain information more efficiently and use it to improve forest management and the project e.g. fire control
- Local communities live close to the forest, can collect data more frequently and easily than outsiders e.g. forest degradation
- More money can go towards local communities from the project rather than scientific ‘experts’ from overseas



## Indicators – what are indicators?

- An indicator is a way of saying "how much" or "how many" or "to what extent" or "what size"
- We need indicators in order to be able to monitor whether project activities are contributing to the goals and objectives of the project
- Indicators are measurable information items that will enable the community monitor to measure aspects of the projects effectiveness
- For e.g. for biodiversity - number of sightings of designated species, number of nests sighted of important species, number of illegal activities in biodiversity monitoring sites.
- For illegal logging, number of incidents, amount of trees felled, number of offenders brought to court and prosecuted
- For fire breaks and boundary maintenance, number of kilometers of fire break built, number of boundary poles put up etc

Indicators will also allow us to measure the progress of community monitors in completing these activities and achieving goals. For example, by tracking the number of meetings attended by the monitor, number of patrols attended, number of reports submitted to CFMC chief.



## What is Monitoring, Reporting and Verification (MRV)

MRV is the term used to describe all forms of monitoring and reporting activities that are part of the REDD+ process, which involves actions taken to measure, report and verify forest area change, carbon stocks and the social and environmental impacts of REDD+ projects. These MRV activities are very important to developing countries rights to receive payments for REDD+ implementation, in that they provide evidence of 'results based actions'.

Knowing the amount of emissions that can be avoided, reduced or captured, measuring carbon, reporting on progress and verifying this process is a key part of planning and implementing an effective REDD+ mechanism. Similarly, being able to monitor and report on the livelihood impacts that REDD+ projects have on local communities and indigenous peoples, such as the rights of

## **Background to the OM CF REDD+ Project**

The Oddar Meanchey Reducing Emissions from Deforestation and Forest Degradation (OM CF REDD+) project was initiated in 2008 and is being implemented by the Cambodian Forestry Administration (FA) in partnership with Pact, Terra Global Capital (TGC) and several local actors. The aims of this 30-year project are to; mitigate climate change, improve local livelihoods and reduce poverty; and protect forests and biodiversity.



access to resources and the distribution of income from REDD+ projects, is crucial to ensuring success and sustainability of REDD+ projects.

### **MRV in the OM CF REDD+ Project**

The monitoring requirements for the OM CF REDD+ project have been set by the TGC ‘mosaic’ project methodology (2010) and Voluntary Carbon Standard project design document (PDD) (2011), as well as the Climate, Communities and Biodiversity (CCB) PDD (2009). Together, these documents set out monitoring, reporting and verification (MRV) requirements for carbon accounting (TGC 2011) and social and environmental values (CCB 2009). The project methodology, for example, outlines 98 monitoring parameters that must be recorded and monitored on an ongoing basis or at set intervals in order to meet VCS requirements.



### **Monitoring requirements of the OM CF REDD+ Project**

The OM CF REDD+ Project has a wide range of information needs. In this project, different stakeholders have different information needs, depending on their role in the project. For example, local authorities (Commune Councils and Police) may not need to know the results from the Biomass Inventory, but they may be interested in the number of illegal activities and arrests in the CF areas. A monitoring framework has been developed for the project – to help project stakeholders identify and manage the different information requirements of project stakeholders. The following table displays the different information. Community monitors will be responsible for collecting data on and monitoring the following activities.

| Category                          | Method/data source                  | Frequency     | Reporting | Responsibility        |
|-----------------------------------|-------------------------------------|---------------|-----------|-----------------------|
| Social Assessment                 | Participatory Rural Appraisal (PRA) | Every 2 years | VCS / CCB | CDA, TGC, Pact        |
|                                   | Household Survey (HHS)              |               |           |                       |
| Biomass inventory                 | Sample plot field survey            | Every 2 years | VCS       | Pact, TGC             |
| Land use land class (LULC) change | Remote sensing (satellite imagery)  | Every 2 years | VCS       | TGC                   |
| Biodiversity assessment           | Field observation                   | Ongoing       | CCB       | CFMCs, Consultant     |
| Project documentation             | Activity reporting                  | Ongoing       | VCS / CCB | CFMCs, CDA, Pact, TGC |

## Patrolling

### Introduction

One of the key monitoring activities of the OM CF REDD+ project is forest patrolling. Due to the high rate of illegal activities in some of the CF areas, and the important reliance that local communities have on forest resources, community members have been active in joining together to conduct patrols and deter illegal loggers and poachers from entering CF areas. Villagers volunteer their time and resources to conduct regular patrols both during the day and at night. Most communities patrol their community forests several times per month, and these patrols range in length from several hours to several days. Collecting data and participating on patrols is an important part of the community monitors responsibilities. This activity proves that communities are taking action to reduce deforestation. Patrols can provide information on a range of variables and data that are important for the project. The community monitor will be responsible for collecting this information either while on patrol or in meetings with patrolling teams. These information includes

- Enforcement issues (e.g. illegal logging, land settlements and clearing, hunting)
- Biodiversity (e.g. mammals, birds)
- Forest Fires
- NTFPs (mushrooms, fruit, rattan)

During patrolling, the monitors need to collect data and then report on this data using the Frontline SMS reporting system. Patrol log books will be developed for the monitors to assist them in recording and reporting on this information. Separate Frontline SMS training materials have also been developed to assist community monitors collect this data. Along with submitting Frontline SMS forms, monitors will also be responsible for documenting information about the patrol in hard copy format.

Below are some forms that provide an example of the type of data that will need to be recorded from patrols. Monitors will also be responsible for taking photos whilst on patrol and GPS coordinates.



Patrolling form

| Date | Participants | Time spent | Location coordinates | Other/Photo |
|------|--------------|------------|----------------------|-------------|
|      |              |            |                      |             |
|      |              |            |                      |             |



Illegal logging form

| Date | Participants | Type of wood | Number of offenders | Cubic meters | Local name/coordinates | Other/Photo |
|------|--------------|--------------|---------------------|--------------|------------------------|-------------|
|      |              |              |                     |              |                        |             |
|      |              |              |                     |              |                        |             |



Land settlements

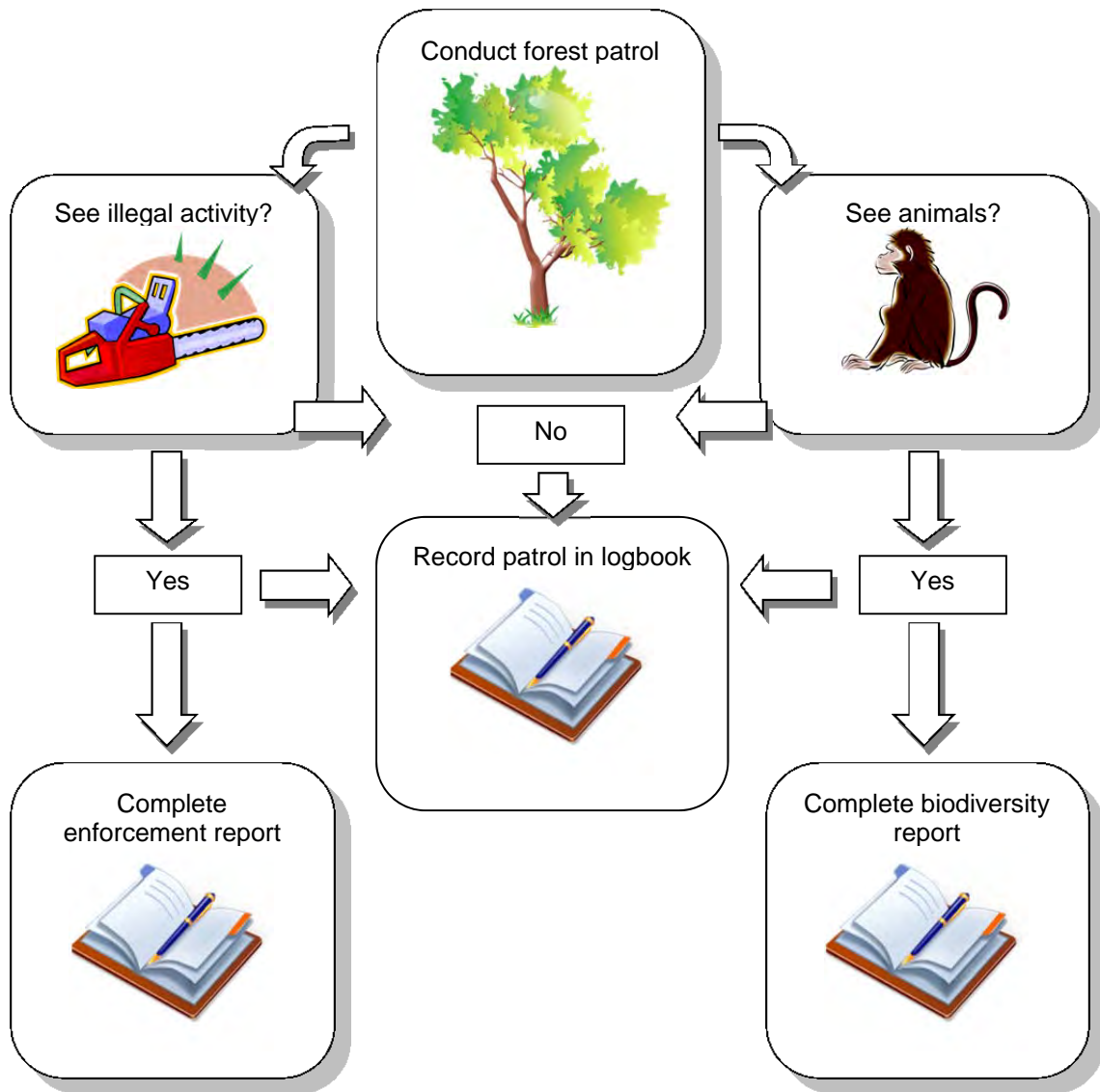
| Date | Participants | Number of offenders | Type of offenders (CF member, military, migrants) | Hectares | Local name/coordinates | Other/Photo |
|------|--------------|---------------------|---|----------|------------------------|-------------|
|      |              |                     |   |          |                        |             |
|      |              |                     |   |          |                        |             |





The following chart can be used to assist community monitors record information after patrols.

### Patrol monitoring flow chart



## **Biodiversity**

### **Introduction**

Biodiversity in the community forestry areas can provide a wide range of benefits and contribute to important ecosystem services (e.g water, climate and soil regulation, food, energy). The CF areas are home to a wide range of species that could also be important for conservation reasons and scientific research. There are many High Conservation Value species in the CF's, which are those species that are rare or endangered and thus very important to protect. The REDD project needs to collect information on biodiversity to help protect it, and also to achieve the Climate Community and Biodiversity Alliance (CCBA) standard. CF monitors have to record biodiversity data, such as the presence of bird and mammal species, on a regular basis while on patrol. Along with collecting regular information on biodiversity during patrols, community monitors will also have to participate and attend in biodiversity assessments, which occur every 2 years, and conduct interviews with patrol teams and CF members to verify the types of biodiversity they have sighted recently.

### **Definition of biodiversity**

What is Biodiversity?

Biodiversity is the degree of variation found in all living organisms. Biodiversity can exist within a single species, between species and within a whole ecosystem.



The shell of an Elongated Tortoise that was collected



Bird Species found in the CF

### **Collecting data**

The monitors collect data when they go on forest patrols. They can identify different species from sightings, footprints, nests, bones, droppings and sounds. The data that needs to be recorded includes the date, type of wildlife species, location sighted. Photos and GPS waypoints also need to be recorded, and are a very useful part of documenting biodiversity. Community monitors will receive training on how to identify different species and document this information





**Large cat prints photographed**

The biodiversity information that needs to be recorded:

| Date | Participants | Biodiversity | Number of wildlife | Local name | Means of identification (e.g. sighting, sound, nest, horn) | Coordinates | Photo captured | Other |
|------|--------------|--------------|--------------------|------------|--|-------------|----------------|-------|
|      |              |              |                    |            |  |             |                |       |
|      |              |              |                    |            |  |             |                |       |

**Frontline SMS**

An important tool that has helped the community monitor and report information about the project is the Frontline SMS mobile phone reporting system. This technology has allowed community members send regular and timely reports in Khmer on forest patrols via SMS to a central server currently administered by Pact. Some of the benefits of this system include: the opportunity for more efficient real-time monitoring; adaptive planning; increased responsiveness; and improved data verification. The frontline SMS phones will be an important tool for the community monitors. By using this tool, monitors will be responsible for submitting regular information on patrols, illegal logging, land settlements, hunting, biodiversity and fires. Training manuals in Khmer have been developed to assist the monitors understand how to use this tool.



**Village leaders from Romdoul Veasna community forest learn how to report on forest patrols using Frontline SMS**

**Social Assessments**

The OM CF REDD+ project requires extensive data and information collection at the community level in order to be able to measure the impact of project interventions. Information obtained at the community

level will also help to further define project strategies. Household surveys and Participatory Rural Appraisals (PRA) will be implemented on a regular basis in order to gather this data. Standard Operating Procedures (SOP) have been prepared for these assessments, which list the objectives and procedures used to conduct these social assessments.

## Household Survey

### Introduction

Household surveys are conducted at the household level and are used to gather socio-economic information regarding the use of natural resources by communities in and around the project areas. This information is important to assist the project team calculate emissions and monitor changes in local livelihoods.

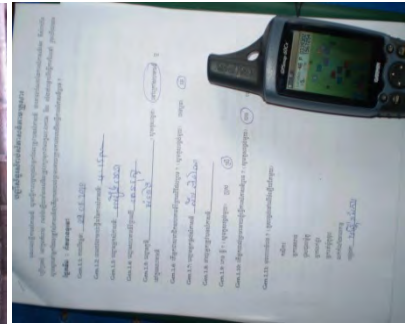
For household surveys, information must be collected both within the project areas and in an area outside of the project area, the reference region. Therefore, household survey for the Oddar Meanchey project must be conducted across three separate strata; 1) households participating with Community Forestry (CF), 2) households not participating with CF, but that are located within participating villages, and 3) households not participating in CF and that are outside of participating villages.



Household interview with villager



Weight of fuel wood used by household per day



The first page of questionnaire and GPS screen need to take photo at the end of interviewing

While there is a lot of information collected during household interviews, community monitors just need to record certain key information about these activities. Community monitors should also take photos of these activities.

Data that community monitors are required to record during HH interviews, are: date conducted, number of participants (M/F), name of village.

Data could be recorded in the table as below:

| Name of village | No of Interviewee |   |                |   | Date Conducted  |
|-----------------|-------------------|---|----------------|---|-----------------|
|                 | CF members        |   | Non CF members |   |                 |
|                 | M                 | F | M              | F |                 |
| Bak Noem        | 6                 | 7 | 2              | 5 | 10-October-2010 |

## Participatory Rural Appraisal (PRA)

PRAs are a group interview exercise (15/20 people) that are conducted every two years in each of the 13 community forestry areas. The information collected during these assessments relates to the following general categories: basic information, crops and irrigation, causes of deforestation and degradation, activities to reduce deforestation and degradation, forest fires, trends in NTFPs, transportation of timber/fuelwood/NTFP, cost of local goods, assisted natural regeneration (ANR), migration, fodder and smoke for protection, participatory mapping of local activities.



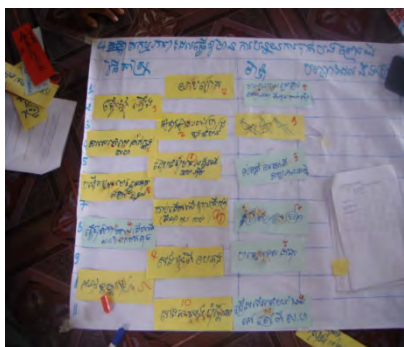
**Wealth Ranking exercise**



**Drivers of deforestation and degradation ranking**



**Estimating the amount of forest lost each year inside and outside the CF area as a result of each driver**



**Activities to reduce deforestation and drawing a map of activities in the CF degradation**



An example of the information from the PRAs that community monitors should record:

| Village conducted | Participants |   | Date of meeting | Wealth Ranking |         |      |
|-------------------|--------------|---|-----------------|----------------|---------|------|
|                   | M            | F |                 | Rich           | Average | Poor |
| Kantuy Choun      | 7            | 8 | 18-June-2012    | 15             | 20      | 65   |

## Forest Inventories

The purpose of a Field Biomass Inventory is to provide necessary data to measure the quantity of carbon contained within an area of interest, i.e., the project area. **Biomass** is material from a living tree or plant. Biomass plots are selected randomly using remote sensing and GIS procedures. The location of each biomass plot must be exactly known through recording GPS coordinates and installing permanent markers. By ensuring that the location is known, the biomass plots can be revisited and re-measured in the future, so that tree growth and biomass changes can be monitored over time. Additionally, independent verifiers may revisit a plot to evaluate the accuracy of the methods used to ensure that carbon quantities are correctly reported.



A forest plot delineated with ropes and temporary corner markers



A team measuring the circumference of all live trees a certain size in biomass plots, trees are tagged and the data is recorded in the datasheet



A community volunteer measures a class 1 logged tree stump

Community monitors need to record specific information about biomass inventories. This includes: the number of biomass plots, participants (M/F), local name of plots, coordinates of the plot, type of forest and number of trees. Community monitors should also take photos of these activities.

An example of a table displaying this recorded information:

| N | Location | Coordinate of plots | Type of forest | Number of | Participants |
|---|----------|---------------------|----------------|-----------|--------------|
|---|----------|---------------------|----------------|-----------|--------------|

| o | name of plots | X-Coordinate | Y-Coordinate |           | tree |   |   |
|---|---------------|--------------|--------------|-----------|------|---|---|
|   |               |              |              |           |      | M | F |
| 1 | Near CF post  | 352434       | 1536254      | Evergreen | 450  | 3 | 1 |

### **Assisted Natural Regeneration (ANR)**

Forest protection measures in the project area will be complemented assisted natural regeneration (ANR) to enhance and restore forests. These ANR activities will play an important role in stimulating the regeneration of degraded forest areas. The implementation of ANR silvicultural techniques will start after carbon credits are generated. Community members will be employed to plant tree seedlings in forest openings and carry out other silvicultural activities such as removing competing vegetation in degraded forests and thinning multi-stemmed trees to encourage growth. As a part of these activities, community members will receive training on ANR techniques. Some important reasons to practice Assisted Natural Regeneration silvicultural techniques include;

- accelerated tree growth
- increased canopy cover
- Improved wood quality
- Increase in tree species in forest ecosystems (both timber and NTFPs)
- more fire resistant forests

Community monitors will need to record certain information during ANR activities, including: the type of treatments, name of location, GPS coordinates.

This information should be recorded in a table as below:

| Area (ha) | Type of treatment   | Number of participats |   | Name of location          | GPS coordinate |              |
|-----------|---------------------|-----------------------|---|---------------------------|----------------|--------------|
|           |                     | M                     | F |                           | X-Coordinate   | Y-Coordinate |
| 125       | Enrichment planting | 2                     | 1 | Nearby strategy road      | 345296         | 1586782      |
| 235       | Site preparation    | 2                     | 1 | Nearby Mr. Sok rice field | 349625         | 1512563      |

### **Non-Timber Forest Products**

Non-Timber Forest Products (NTFPs) are products obtained from the forest other than wood. This includes wild vegetables, fruits, honey, rattan, and resin, etc. These NTFPs are used daily by the families around the CF to support their livelihoods. To understand how these NTFPs have been used, it is important that community monitors record this information regularly. This includes the type of NTFPs, the quantity collected per time period, the number of families collecting NTFPs, the name of village, and location CF member collected in the CF as indicated in the table. This information can be gathered through interviewing with CF members in each village. In addition, the community monitors should be

able to understand about increasing or decreasing of NTFPs trade in their responsible CF sites. To do so, they need to conduct interview with CF members about this matter.

| No. | Name of village/area where the NTFP collected | Type of NTFPs | Quantity of NTFPs collected per time period | # of families collecting NTFPs | Location of villages that collect this NTFP in the CF |
|-----|---|---------------|---|--------------------------------|---|
| 1   |   |               |   |                                |   |
| 2   |   |               |   |                                |   |



### Timber use (legal use)

CF members normally harvest timber for household use such as for building houses, fencing, and making stables for livestock and storage rooms for agricultural equipment. The need for timber at the local level cannot be avoided; especially for house construction. In order to have specific information on the amount of timber each community harvest, community monitors need to make regular records of timber products harvested by CF members. The community monitors can collect this information from villagers to identify areas where timber is being collected, reasons for use (for local or commercial uses), the species of wood, place of collection in the CF, date of collection, number of families collecting timber and how many cubic meters, as indicated in the table. From this activity, the adverse effects of timber harvesting in the OM REDD+ Project can be better controlled.

| No. | Name of village | How many cubic metres | # of families collecting timber | Reason for use | Species of wood | Place of collection in the CF | Date of collection |
|-----|-----------------|-----------------------|---------------------------------|----------------|-----------------|-------------------------------|--------------------|
| 1   |                 |                       |                                 |                |                 |                               |                    |
| 2   |                 |                       |                                 |                |                 |                               |                    |
| 3   |                 |                       |                                 |                |                 |                               |                    |





**Meetings, training and information dissemination**

Community monitors need to participate in meetings, trainings and information dissemination events that are taking place at the community level. These events can be organized by the local Forestry Administration, Pact, local NGOs such as CDA and other organizations. Community monitors have to record the following information as indicated in the table. In addition, the minutes of meetings, trainings and information dissemination events need to be recorded by the community monitors.

| No. | Date | Topic | # of participants |        | Location of the event | Facilitators | Duration |
|-----|------|-------|-------------------|--------|-----------------------|--------------|----------|
|     |      |       | Male              | Female |                       |              |          |
| 1   |      |       |                   |        |                       |              |          |
| 2   |      |       |                   |        |                       |              |          |



**Field visits**

Field visits are an effective way for stakeholders and researchers to learn about general issues occurring in the CF sites. When field visits occurs, community monitors need to record what activities the visitors conducted during their visits, the parties involved, what issues they discussed and where the visits took place.

Community monitors will also be responsible for conducting field visits of their own, in various different ways. For example, they can spend time with CF members and other relevant stakeholders to discuss further strategies for controlling the main drivers of deforestation within their CF sites. Community monitors can also participate in the CF patrolling teams so that they are able to understand and assist in resolving problems affecting the CF sites.

| No. | Date | What kind of field visit | # of participants |        | Location of the visit |
|-----|------|--------------------------|-------------------|--------|-----------------------|
|     |      |                          | Male              | Female |                       |
| 1   |      |                          |                   |        |                       |
| 2   |      |                          |                   |        |                       |



**CF Activities**

CF groups are an important part of the OM CF REDD+ Project. The range of activities that they are involved in play a key role in reducing deforestation and ensuring that the project is successful. The community monitors will have to participate in and document CF activities. For example, the monitor will play an important role in helping to monitor the CF budget.

**CF spending and budget**

The monitors will document information related to the spending of the CF groups, including the date, participants, what the activity was, and the amount spent.



Budget form

| Date | Participants | Activity | Source of funding | Amount spent/<br>receipt |
|------|--------------|----------|-------------------|--------------------------|
|      |              |          |                   |                          |
|      |              |          |                   |                          |

**Benefit Sharing**

An important part of the community monitors responsibilities will be collecting data on the impacts of the project. This information will help to ensure that community members are benefitting fairly from the project, including vulnerable groups, such as women, poor families, and disabled and aged people. This will require the monitor to conduct village visits in order to interview community members on the benefits of the project, and then share this information with the CFMC and other stakeholders. Monitors will receive training on how to conduct these interviews and collect this data.

**Information Sharing and Reporting**

An important part of the community monitors responsibilities will be the reporting and sharing the information that they have collected. The timely and effective reporting of information will be very important to helping the CFMCs manage the CF areas and will allow the project to adapt and respond to new information. Monitors will be responsible for preparing monthly reports for the CF Chiefs, summarizing the data that they have collected over that period and the activities that they have been involved in. They will also have to prepare a quarterly report which they will share with project stakeholders (Pact, CDA, CFN, local authorities). Patrolling information will be shared by the monitors after every patrol, using the Frontline SMS system.

Monitors will also need to attend quarterly OM Forest Federation meetings to report on events in their CF group. They would be responsible for bringing their report forms to these meetings for review from CFMC member and other Project staff.

Community monitors will also be required to attend quarterly meetings with all the community monitors from the project area, which will be organized and attended by the CFN Chief.

## **Data Storage**

### **Introduction**

Ensuring that data is correctly stored and managed after it has been recorded is very important for the project. Verifiers will want to check certain documents when they come to verify the project, and it's important for the CFs to have data documented so that they can access it. Community monitors will be responsible for storing and ordering hard copies of all the data they collect and keeping these original documents in the community. This should be done by filing all documents, keep hard copies in a folder, labelling it in alphabetical order, by category and by time (month, year).



**Keep the folder in the cabinet. Organise folders according to data categories. i.e. patrolling, forest inventory etc**



**Place the document in the folder by alphabetical order with a divider between each document**



**Label the folder with detailed information, according to the data category and date**