



Community guidelines for accessing forestry voluntary carbon markets

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Foreword

The impacts of climate change are many and varied, and notoriously hard to predict with great accuracy. However, one impact is beyond doubt; the climate change debate has brought forests to the forefront of the international development agenda. Forests have acquired a new value as one of the planet's most important stores of carbon, thus helping to ensure that levels of atmospheric carbon dioxide, the most abundant greenhouse gas, are kept below critical levels.

As with all newly-appreciated values, new markets are not far behind. Carbon markets allow forest owners to gain recognition, and financial compensation, for the work they do to keep the forests in place, and to manage them sustainably. Since the 1990s, this market has steadily taken shape, growing from simple, scattered beginnings to become a genuinely new financial innovation – the forestry Voluntary Carbon Market, or forestry VCM.

Forest owners, however, have generally not been the first to understand the potential of this new market. It operates along completely different lines from conventional markets for timber and other forest products. It is similar to other types of Payment for Ecosystem Services (PES), but at the same time it is more regulated and more objective than watershed protection or biodiversity conservation. It is a complex concept, and there is a very real risk that forest owners may surrender the potential benefits of this new market to other, better-informed actors.

Small landholders and local communities in rural areas of the Asia-Pacific region, who control large areas of the most environmentally valuable forest areas through formal or customary systems, are at the greatest risk of losing out in this new market. Moreover, with incomplete or

inaccurate information about the forestry VCM, they may unwittingly put their livelihoods, and their forests, at risk.

The Food and Agriculture Organization of the United Nations (FAO) engaged the services of Silvestrum VoF¹ to produce these guidelines as part of a project² which helps smallholders and local communities in the Asia-Pacific region to access the forestry VCM. Their aim is to create a more even playing field so that these grassroots stakeholders, and the groups that work on their behalf, can make the most of the potential benefits, and avoid the dangers, of this new market.

Although the guidelines introduce several terms and concepts which will be new to many forest sector stakeholders, a successful forestry VCM project is about local goals, resources and abilities. Local forest owners, and the communities to which they belong, must retain control of the decision-making processes. The value of the forestry VCM is, after all, small compared to the social, environmental and economic benefits on which so many rural livelihoods depend.



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2 TCP/RAS/3210: Linking communities in Southeast Asia to forestry-related voluntary carbon markets

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Acronyms

AGNWB	Above-ground non-woody biomass
AGWB	Above-ground woody biomass
ALM	Agricultural Land Management
ARR	Afforestation, Reforestation & Re-vegetation
BAU	Business As Usual
BGB	Below-ground biomass
CO₂	Carbon Dioxide
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CFI	Community Forestry International
CFS	Carbon Fix Standard
CSR	Corporate Social Responsibility
ERPA	Emissions Reduction Purchase Agreement
FPIC	Free, Prior and Informed Consent
GHG	Greenhouse Gases
GIS	Geographic Information Systems
GIZ	German International Cooperation
GPS	Global Positioning System
HWP	Harvested Wood Products
IFM	Improved Forest Management
IPCC	Intergovernmental Panel on Climate Change
KTGAL	Kyoto: Think Global, Act Local
LULUCF	Land-use, Land-use Change, and Forestry
MRV	Measurement, Reporting and Verification
PD	Project Description
PDA	Personal Digital Assistant
PDD	Project Design Document
PES	Payment for Environmental (or Ecosystem) Services
PIN	Project Information Note
REDD	Reducing Emissions from Deforestation and forest Degradation

SFE	State Forestry Enterprise
SFM	Sustainable Forest Management
SOC	Soil Organic Carbon
SOP	Standard Operating Procedures
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
VCM	Voluntary Carbon Market
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit
VER	Voluntary Emission Reductions
VVB	Validation/Verification Bodies

Glossary

To make best use of these guidelines, the reader must be familiar with the following key terms:

Additionality

The general definition of additionality is: “The extent to which a new input adds to the existing inputs (instead of replacing any of them) and results in a greater aggregate.”³ In the carbon market this refers to the **net** reductions in GHG emissions resulting from a project activity that **would not have happened** in the absence of the project. Only when this is proved can the project claim to contribute to climate change mitigation and thus potentially earn **carbon credits**.

Afforestation

The deliberate conversion of non-forest land to forest. This only applies to land that has not been forest for at least 50 years. Afforestation is always caused by humans, one way or another, for example by planting, seeding or assisted natural regeneration.

Agricultural Land Management (ALM)

These projects aim to reduce net **Greenhouse Gas (GHG)** emissions from croplands and grasslands by increasing the **carbon stocks** in one or more **carbon pools**, such as soil organic carbon or above-ground woody biomass. They may be considered a type of forest carbon project under the **Voluntary Carbon Market (VCM)** if they involve the planting or management of trees on croplands or grasslands.

³ Source: www.businessdictionary.com

Afforestation, Reforestation & Re-vegetation (ARR)

A type of forest carbon project in which trees are planted either (1) on areas that did not have forest before, (2) on areas that have not been forest for at least 10 years, or (3) on areas that need vegetation to be re-planted for rehabilitation purposes.

Carbon Credit

A common term used to describe the basic unit of the VCM. A project can claim a carbon credit when one metric ton of carbon dioxide, or the equivalent amount of other GHGs⁴ is removed from the atmosphere or is prevented from being emitted in the first place. Carbon credits are therefore counted in units of 'one ton of carbon dioxide equivalent' (tCO₂e).

Carbon Footprint

The amount of **GHGs** resulting from an individual's activities is known as their carbon footprint. Carbon footprints can also be calculated for a household, a company or an organization by adding up the emissions caused by the use of power and transport and the consumption of food and manufactured products.

Carbon Neutral

An individual, household or organization that is responsible for zero net emissions of **GHGs** from all its activities can claim to be carbon neutral. This is usually achieved by cutting down on all types of consumption as much as possible and then using **carbon offsets** to compensate for any unavoidable emissions.

4 Each GHG has a different Global Warming Potential (GWP). The GWP of CO₂ is taken as 1. The GWPs of CH₄ and N₂O, respectively, are 21 and 310. This means that, over a 100 year period, one unit of N₂O will have the same impact on global warming as 310 units of CO₂.

Carbon Offset

A **carbon credit** (one tCO₂e of emission reductions) generated through activities in one place may be ‘sold’ to individuals or organizations unconnected with those activities. The buyer of this carbon credit claims to have compensated, or ‘offset’, an equal amount of emissions generated from their own activities. The VCM is essentially a market in carbon offsets.

Carbon Pool

The locations within an ecosystem where carbon is present continuously. In a forest, the main carbon pools are in biomass (both above and below ground), dead matter and soil. **Harvested Wood Products (HWPs)** are also considered a carbon pool, although no longer part of the forest ecosystem, because they store carbon continuously in the long term.

Carbon Sequestration

The uptake and storage of carbon is known as carbon sequestration. Trees and other plants, for example, do this by absorbing CO₂ from the atmosphere. In the process known as photosynthesis, CO₂ is broken down into oxygen, which is released back into the atmosphere, and carbon, which becomes part of the plant. As a result, forests store (or ‘sequester’) large amounts of carbon.

Carbon Sink

Carbon sinks are **carbon pools** which store more carbon than they release. Forests and oceans act as major carbon sinks in the global carbon cycle; carbon constantly flows into them and out of them, back into the atmosphere. In some situations, forests may release more carbon than they store, making them ‘carbon sources’. Note: the carbon stored in fossil fuel deposits is not considered a carbon sink, because it is not active in the carbon cycle.

Climate Change Adaptation⁵

Adjustment in natural or human systems in response to actual or expected effects of climate change. These adjustments are intended either to reduce the harm caused by these effects or to exploit any opportunities to benefit that climate change may present. Types of adaptation activities include anticipatory (before the effects of climate change are felt) or reactive (after the effects). They can also be planned and implemented, by public and private actors, or happen autonomously.

Climate Change Mitigation

Human intervention to reduce the intensity or severity of climate change. Mitigation actions aim to limit the concentration of GHGs in the atmosphere by either reducing the sources or enhancing removals by sinks of GHGs. Such actions may include: reducing emissions caused by fossil fuel combustion or deforestation; enhancing removal of CO₂ from the atmosphere by extending forest cover, or by improving forest management strategies.

Community Forestry⁶

Any situation that involves local people in a forestry activity. It covers a wide range of situations including; woodlots in areas which are short of wood and other forest products for local needs; growing of trees on farms for income generation; the processing of forest products at the household, artisan or small industry level; and the activities of forest-dwelling communities.

Deforestation

Those practices or processes that result in the conversion of forested land for non-forest uses, including the conversion of natural forest to commercial tree plantations.

5 <http://www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf>

6 FAO. 1992. Community Forestry: 10 Years in Review. Rome, Italy. (Available at <http://www.fao.org/docrep/u5610e/u5610e00.htm#Contents>)

Ecosystem Services

Natural ecosystems supply a multitude of resources and processes that benefit human populations. Collectively, these benefits are known as ecosystem services and include, for example, the provision of clean drinking water, food and shelter. While scientists and environmentalists have discussed ecosystem services for decades, definitions of these services were formalized by the United Nations 2005 Millennium Ecosystem Assessment (MEA) grouping ecosystem services into four broad categories: *provisioning*, such as the production of food and water; *regulating*, such as the control of climate and disease; *supporting*, such as nutrient cycles and crop pollination; and *cultural*, such as spiritual and recreational benefits.

Environmental Services

In contrast to ecosystem services, environmental services are services provided by the environment as a whole, and not limited to the natural ecosystems which are part of that environment. In forestry, the main environmental services include: climate change mitigation (carbon retention in sinks), water regulation and retention and the conservation of biodiversity.

Emissions Reduction Purchase Agreement (ERPA)

An agreement, or contract, that describes the sale of carbon credits in the **Voluntary Carbon Market (VCM)**. The ERPA clarifies the roles, rights and responsibilities of the buyer and the seller over the carbon credits involved in a particular transaction.

Forest⁷

In the context of the VCM, and for the purpose of these guidelines, a forest is an area of land, on which tree cover exists, and is able to reach

⁷ Many different definitions of ‘forest’ exist. These Guidelines use the definition provided by the UNFCCC in the Annex to Decision 16/CMP.1.

minimum threshold values at maturity of:

- Area: At least 0.05–1.0 hectare
- Canopy cover: At least 10–30 percent of the area
- Height: At least 2–5 metres.

The exact minimum threshold values used to define a forest differ between countries, and can be decided by the country itself. Since the emergence of the UNFCCC, and in particular of the Kyoto Protocol, most countries select values within these ranges. Young natural stands and all tree plantations, which have the ability to meet the minimum threshold values at maturity, are also considered forests, as are areas that are temporarily devoid of tree cover due to clearfelling but will be replanted or restored to forest cover, meeting the minimum threshold values.

Forest Carbon Stock

The amount of carbon contained within a defined **carbon pool**. Forest carbon stock includes the total amount of carbon stored in all carbon pools.

Greenhouse Gas (GHG)

A Greenhouse Gas can absorb and emit infrared radiation. Through their presence in the Earth's atmosphere, more of this radiation from the sun is trapped near the surface. Without this 'greenhouse effect', the planet would be much colder. Water vapour (clouds) is the most significant GHG in terms of its overall impact on the greenhouse effect, but climate change negotiators focus instead on the GHGs which are most susceptible to changes in concentration as a result of human behaviour. These are Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), Sulphur Hexafluoride (SF₆), Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs).

Harvested Wood Products (HWP)

All woody material taken from a forest. HWPs act as carbon pools, storing carbon for varying lengths of time. These products include, for example, firewood, construction timber, paper, fibreboard, and wooden furniture.

Leakage

Reductions in GHG emissions that are offset by increases in emissions in other areas or in other carbon pools; where both the reductions and the increases are the direct or indirect result of the same project or activity. For example, a forestry VCM project may plant trees on an area of cropland, which leads to local farmers clearing an area of natural forest elsewhere to replace the cropland. When calculating net emissions to be converted into carbon credits, a forestry VCM developer must show that all such leakage has been taken into account.

Permanence

Permanence refers to the longevity of a carbon pool and the stability of its stocks. A feature of land-based carbon projects is the possibility of a reversal of carbon benefits due to natural disturbances (e.g., fires, disease, pests, and unusual weather events), or due to human-induced activities, such as clearfelling forest without the intent to restore forest cover. This may result in the reversal of the carbon benefits previously achieved. In contrast to land-based projects such as forestry VCM projects, projects that replace fossil fuels with renewable energy sources lead to permanent emission reductions.

Project Description (PD) and Project Design Document (PDD)

A document that describes how a particular forestry VCM project will work. It includes, among other things, a basic description of the project context, monitoring methods, estimate of emission reductions and potential social and environmental impacts. *Note: Project Description*

(PD) is an official term under one particular type of VCM project – the Verified Carbon Standards (VCS). In other types of VCM projects, the PD may also be known as a Project Design Document (PDD).

Project Idea Note (PIN)

A PIN is a short document, similar to a concept note, which summarizes the project and its expected results and impacts, including how it will generate **carbon credits**. It is usually one of the first steps in the VCM process, and is important for attracting investors. See also Annex 1 for a sample of a completed and approved PIN.

Reducing Emissions from Deforestation & forest Degradation (REDD)

A type of forest carbon project in which existing forests are not removed but instead are conserved, protected or otherwise managed differently than before. A project that reduces emissions from deforestation reduces the rate at which forest is converted into other land use categories. These projects relate to the area of forest. A project that reduces emissions from forest degradation slows the loss of forest biomass and with that the loss of products and services from a defined area of forest. These projects have no area dimension (the area remains the same).

Note: REDD in the VCM context must not be confused with REDD+, which is a term used in climate change negotiations. REDD+ includes REDD project types plus conservation, sustainable management of forests and enhancement of forest carbon stocks.

Reduced Impact Logging (RIL)

A systematic approach to planning, implementing, monitoring and evaluating forest harvesting which reduces the negative impact of these activities on forest products and services. RIL is a type of Improved Forest Management (IFM) approach.

Reforestation

The deliberate conversion of non-forest land to forest. In contrast to afforestation, reforestation applies to land that was a forest in the recent past, but which has not lost forest or other native vegetation within the last 10 years. Reforestation is always caused by human intervention, for example by planting, seeding or assisted natural regeneration.

Standard Operating Procedures (SOPs)

Instructions on how to implement activities in the same manner regardless of time, location, or personnel.

Stratification

The process of separating forest data into distinct elements (or *strata*). The strata consist of parts that are physically separated but are similar in terms of carbon stocks and flows. Stratification can be spatial, dividing a large natural forest into distinct types of vegetation. It may also be vertical, dividing the forest into layers with differing carbon stocks, such as: ground vegetation; understory; and canopy.

Sustainable Forest Management (SFM)

SFM aims to ensure that the goods and services derived from the forest meet present-day needs while at the same time securing their continued availability, contribution to long-term development, and provision of economic, ecological and social functions at local, national and global levels.⁸

Transaction Cost

A cost relating to participation in a market. These costs may include, for example, the expenses incurred in getting legal approval for a project,

8 Adapted from FAO definition of SFM, retrieved from [www.fao.org/forestry/sfm_on_27th Jan 2012](http://www.fao.org/forestry/sfm_on_27th_Jan_2012)

obtaining and maintaining project records in a national database, training staff to a required standard and conducting due diligence on the market situation to ensure that the approach or strategy employed is the right one for the project situation.

Verified Carbon Unit (VCU)

A type of carbon credit traded under the Verified Carbon Standards (VCS) system. Whenever they are traded as carbon offsets on the VCM, they are tracked through a registry system.

Voluntary Carbon Market (VCM)

The 'carbon market' involves the buying and selling of **carbon credits**, usually as **carbon offsets**. The VCM consists of buyers who are not obligated to reduce their carbon emissions. They offset their emissions voluntarily. In contrast, the compliance carbon market is driven by the commitments taken on by industrialized countries that have signed the Kyoto Protocol. If these countries are not able to meet these commitments through their own actions, they *have* to pay for carbon offsets.

Voluntary (Verified) Emission Reduction (VER)

Voluntary Emission Reductions and Verified Emission Reductions are both known as VERs. They are **carbon credits** which are traded on the voluntary carbon market. VERs are verified through scientific methods to make sure that they represent real emission reductions.

Background information

Before using these guidelines, it is essential to understand the connection between carbon, climate change and forestry. Forests have a significant role within climate change, and their crucial role in climate change mitigation and adaptation is internationally acknowledged. This connection is clearly described within the first chapter of the guidelines.

Forests have a complex role in climate change. They are a potential **source** of Greenhouse Gases (GHGs), releasing carbon dioxide (CO₂) emissions when cleared. They also have great potential as **sinks**, removing CO₂ from the atmosphere, converting it to carbon, which is stored as biomass. Forests as a source of emissions aggravate climate change, while forests as a sink contribute to climate change **mitigation**. Forests are also sensitive to the effects of changes in temperature, precipitation and seasonal patterns, so their ecosystems are vulnerable to the adverse effects of climate change. However, through the products and **environmental services** they provide, forests also help to make human populations less vulnerable to the damaging effects of climate change, and are therefore important in **adaptation** strategies, such as:

- The sustainable use of timber and non-timber forest products for alternative livelihoods;
- On-farm plantations for protection of watercourses and provision of shade and dry season fodder for livestock, and;
- Maintenance of biodiversity corridors as shifting seasonal patterns cause wildlife habitats to change.

So there are many sound reasons why forests have become increasingly linked with efforts to address climate change over recent years. The growth of the forestry Voluntary Carbon Market (VCM) is part of this trend. Forestry VCM projects are valued because of their role in climate

change mitigation. But forests still provide the same benefits that they always did, before the emergence of the VCM. These benefits, such as biodiversity conservation, environmental services and their significance for local livelihoods, are often termed 'co-benefits' in VCM circles, but are much more important to local communities than the potential economic benefits of forest carbon projects.

The potential **environmental services** that forest carbon projects may provide include regulation of water supplies, maintenance of soil fertility, food provision, habitats for valuable non-timber forest products, pollination of crops, etc., but also include various benefits to local livelihoods, not necessarily provided by natural ecosystems but by the wider environment. The scale of co-benefits can vary.

The **social co-benefits** of forest carbon projects may include knowledge and skills generation through planning and management, timber and non-timber forest products, food security, employment opportunities and investments in local infrastructure. Local people may also benefit from forest carbon projects through their participation in the decision-making processes of the projects, clarification of land tenure and use rights, and through political and legislative changes which enhance these benefits.

These guidelines address the forestry VCM with a view to maximizing these social co-benefits by highlighting the importance of **community forestry** approaches, and the lessons of decades of experience in the Asia-Pacific region in community-based forest management.

The carbon market

Growing or establishing forests can help to combat climate change through absorbing CO₂ from the atmosphere, storing carbon in various carbon pools, and, once they leave the forest, in harvested wood

products. Forest owners and managers can accelerate this process by managing and conserving existing forest areas, or by creating new ones. If they can prove how much carbon has been stored as a result of their efforts, they may claim '**carbon credits**' based on this amount. The carbon market facilitates the trade in carbon credits, which generates resources to invest in the forestry sector.

There are two carbon markets: the **regulated (or compliance) market** and the **voluntary market**. The former is related to activities that are taking place under international negotiations through the United Nations Framework Convention on Climate Change (UNFCCC), whilst the latter is a market evolving on a voluntary basis, mainly driven by the private sector and consumer interest. These guidelines are aimed at forestry projects that are initiated, on a voluntary basis, to generate carbon credits, whilst at the same time improving local livelihoods and enhancing the environmental services provided by forests.

The **Voluntary Carbon Market (VCM)** helps to reward these positive actions. It is not a single entity, but covers all the mechanisms that facilitate the trade in carbon credits which are not generated for compliance purposes. **A forestry VCM project** implements specific forestry activities which result in a net uptake of carbon into forest biomass, soil, and timber products, and therefore, a reduction of CO₂ emissions, and those of other greenhouse gases (GHGs), into the atmosphere. The net quantity of carbon uptake and/or emission reductions (hereafter referred to as carbon benefits) is measured and turned into carbon credits that can be marketed through various mechanisms or markets, or be sold directly to buyers or investors.

The VCM supports different kinds of activities in the forestry sector, including the protection of forests, improving forest management, planting trees on non-forest land, and the rehabilitation of degraded forests and forest areas. These are all very different activities, and there are different **standards and methods** to account for the emissions and removals associated with these activities. These are described in more detail in Chapter 3.

What is a forestry VCM project?

In order to be considered for the VCM, a forestry project must set itself aside from ‘traditional’ forestry initiatives. Negotiators under the UNFCCC process agreed on a number of requirements, as set out below, which are also used by the voluntary markets. More detail is provided where necessary in later sections.

Additionality

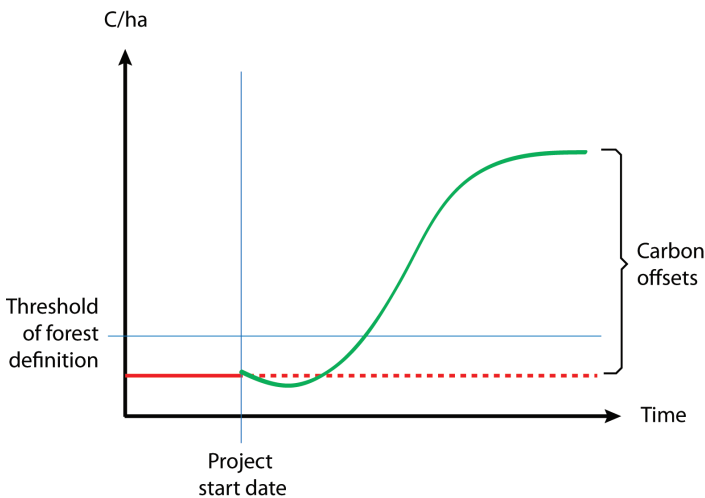
Simply ‘repackaging’ a normal forestry initiative is, therefore, not good enough. A forestry VCM project is considered additional if it meets the following requirements:

1. The activity does not take place on land that was covered by a natural ecosystem in the ten years preceding the start of the project;
2. It cannot be the *only* option. There must be plausible, credible alternative land-use scenarios that could happen on the land in question. If there are none, and the forestry activity planned under the project is the only plausible, credible land use, the project is not additional;
3. An investment analysis must demonstrate that without the income from carbon credits, one or more of the alternative land-use scenarios would be more economically viable; or,
4. Non-financial barriers (e.g. technical, institutional or governance barriers) need to be identified that would prevent the implementation of project activities without the benefits provided through the forestry VCM.

Methodology

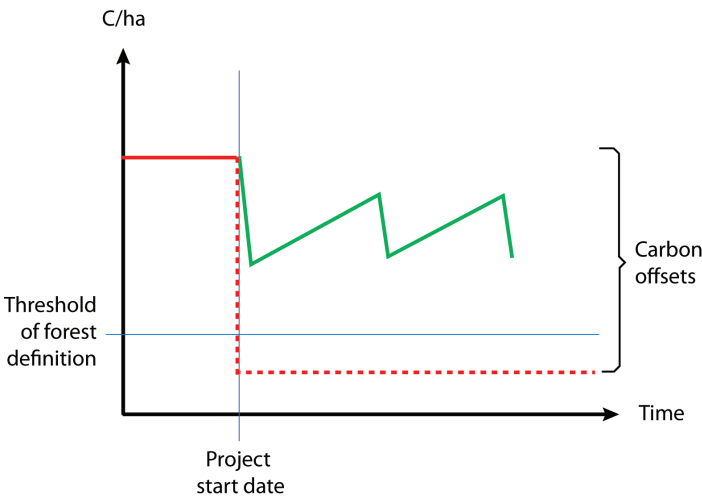
Projects must also be from an eligible project type or activity. Reforestation, improved forest management and avoiding deforestation or forest degradation are all types of activities that are eligible under various standards (the methods are described in more detail in Chapter 2). The figures below illustrate how the different forestry activities actually generate carbon benefits. It is important to note that carbon benefits are always quantified against the baseline: it is the difference between what **would have happened** in the Business As Usual (BAU) scenario and what **is expected to happen** in the project case that matters. That includes situations whereby the project case reduces emissions in comparison to the baseline but is actually still causing net emissions. An example is going from unsustainable, high impact logging to reduced impact logging (see Figures 1 a, b, c and d for graphical illustrations).

Figure 1: Generating ‘carbon benefits’ from forestry activities



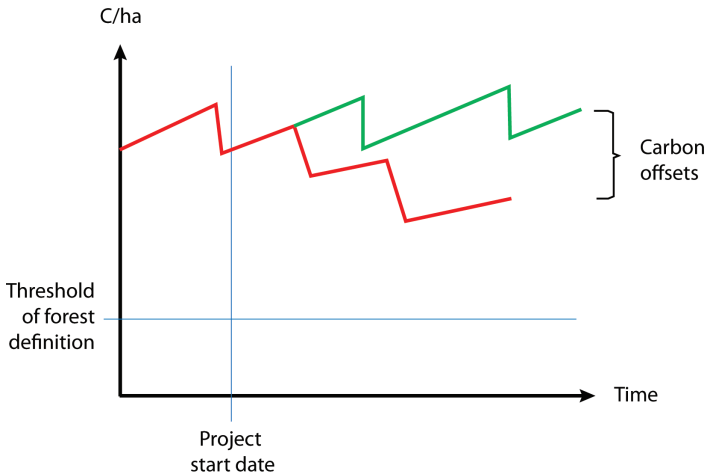
(a) BAU is non-forest cover, project case is afforestation

The dotted red line is the BAU scenario; it is consistently below the threshold value for forest (the blue line) and is therefore ‘non-forest’ land. If the carbon stock of vegetation is above the blue line, it can be considered forest. The green line represents the normal growth rate of a forest established under a forestry VCM project. The difference between the baseline (red) and the green line represents the carbon benefits of the project; carbon that is stored due to the implementation of the project in addition to the baseline.



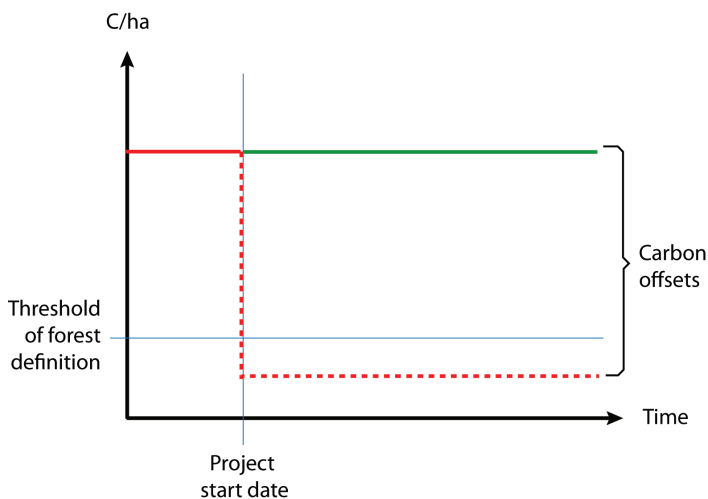
(b) BAU is deforestation, project case is sustainable logging

The dotted red line is the BAU scenario, showing forest cover and deforestation at some point in time. The green line represents a sustainable logging cycle, established as part of a forestry VCM project. It shows fluctuating levels of carbon stocks in the project as the area is logged, grows back, is logged again, and so forth. The difference between the baseline (red) and the green line represents the carbon benefits of the project; carbon that is stored due to the implementation of the project in addition to the baseline.



(c) BAU is unsustainable logging, project case is sustainable logging

The red line is the BAU scenario, showing fluctuating but steadily decreasing carbon stocks as the area is repeatedly logged on an unsustainable basis. The green line, as in (b), represents a sustainable logging cycle, established as part of a forestry VCM project. It shows fluctuating levels of carbon stocks in the project as the area is logged, grows back, is logged again, and so forth, while maintaining consistent levels of carbon stocks over time. In both the BAU and the project case, in this scenario, the project area retains its forest status (neither the red or green lines fall below the blue line). The difference between the baseline (red) and the green line represents the carbon benefits of the project; carbon that is stored due to the implementation of the project in addition to the baseline.



(d) BAU is deforestation, project case is forest conservation

The red line is the BAU scenario, showing forest cover followed by deforestation at some point in time. The green line represents the impact of a forest conservation programme, implemented as part of a forestry VCM project, where carbon stocks are constantly maintained at the level of the natural forest environment. Conservation doesn't mean 'doing nothing'; it may require an intensive programme of activities to address the human and non-human drivers of deforestation. The difference between the baseline (red) and the green line represents the carbon benefits of the project; carbon that is stored due to the implementation of the project in addition to the baseline.

The methods of calculating carbon offsets (see glossary) are defined in different ways by different VCM standards. These standards are outlined in Chapter 2. There are several aspects they have in common, and leakage (described below) is one of them.

Leakage

Leakage (see glossary) is the ‘leaking away’ of achieved carbon benefits, e.g. reductions in GHG emissions that are offset by increases in emissions outside the project area or in other carbon pools. A forestry VCM project must demonstrate convincingly it has taken all sources of leakage into account when calculating potential carbon benefits. Leakage can happen by either moving the baseline activity somewhere else (activity shifting), or by ‘market leakage’, where a different actor steps in to fill a gap in the market caused by the reduced supply of a product or service as a result of project activity, and in doing so causes emissions. This is also discussed in more detail later on, but it is important to note here that the project must aim to limit leakage, through proper design, and must adjust the projected carbon benefits of the project to account for any leakage that cannot be prevented.

If a forestry project meets these requirements, it can be considered a truly additional forestry VCM project.

Introduction to the guidelines

These guidelines will explain the step-by-step process for developing and implementing a successful forestry VCM project, by answering these key questions

- “**What** types of forestry VCM projects can be undertaken?”
- “**When** is starting up a forestry VCM project a good idea?”
- “**How** can a forestry VCM project be developed?”
- “**What** does it take to implement a forestry VCM project successfully and verifiably?”

Who could benefit from using these guidelines?

These guidelines are meant for a broad audience, including rural communities, smallholders, NGOs, government officials, and/or partners who work with or advise these other groups.

Community-based forest managers

A growing proportion of forestry VCM projects are managed by community groups and the sector is taking note of this fact. The Plan Vivo standard (see Chapter 2) only certifies land-use projects designed by communities. This audience includes many types of community-based forest management groups throughout the Asia-Pacific region, such as Community Forest User Groups (CFUGs) in Nepal, Forest Protection Committees (FPCs) in India, Community-based Forest Management

Agreement (CBFMA) holders in the Philippines, and more. Many countries in the Asia-Pacific region have legal structures for formally recognizing communities that own, manage, or use forests, which means that these communities can explore involvement with forestry VCM projects as a means to achieve their management goals.

Smallholders/smallholder groups

Individuals, families, and groups who own and manage small plots of forest land may find these guidelines useful in assessing whether a forestry VCM project is compatible with their current management goals. Smallholders will learn the distinct advantages and disadvantages of developing forestry VCM projects. Chapter 6 highlights the importance of having clear property rights and simple benefit sharing arrangements in making project management less complicated and risky. Chapter 2 discusses the obstacles caused by high transaction costs of forestry VCM projects and the options for addressing these obstacles through grouped projects.

NGOs

These guidelines will also be useful for NGOs that are exploring the idea of developing their own forestry VCM project, and NGOs that partner directly with local communities that may be interested in getting involved with the forestry VCM. Nearly all existing forestry VCM projects have at least one NGO partner, and these guidelines will be useful for helping NGO workers give sound advice to their local project partners. NGOs can serve many different roles related to project management; these roles are discussed in detail in Chapter 3. This chapter also discusses the multiple benefits of forestry VCM projects related to poverty alleviation, land rights, and rural development, which are of particular interest to many NGOs.

Local forestry officials and government workers

Local forestry officials and government workers may serve as extension agents to communities and work in areas being developed for forestry VCM projects. They may also be called upon to provide expertise in matters like forest inventory procedures, boundary delineation, analysis of remotely sensed images, clarification of property rights and land tenure, and conflict resolution. These guidelines will be useful to these individuals who have a very specific role to play, by providing a broader picture of the forestry VCM project cycle from start to finish.

Box 1: Grouped project case study Inpang Community Network, Thailand

The Inpang Community Network began in the mid 1980s with local farmers in Northeast Thailand. Inpang families have transformed a number of fields to diverse agro-forestry systems. The Inpang Community Network includes more than 4 000 households in five provinces in Northeast Thailand. Their farms include a wide variety of tree plantations and agroforestry systems. Carbon2Markets, a private sector company, is developing this project in cooperation with the Inpang Community Network and Mahasarakham University (MU).

The Inpang Community Network provides training and services in sustainable farm management and sufficiency economy to farm communities and groups throughout Thailand and they operate a training center in Sakhon Nakon Province, called the Life University. The Inpang Community Network is working cooperatively with the researchers at the University and the National Research Council of Thailand (NRCT) to coordinate this project with Inpang member

farmers in three provinces: Kalasin; Nakhon Phanom; and Sakhon Nakon. Network members and researchers at MU and the NRCT are working on farms to develop the project, establish site boundaries, permanent sample plots, and tree measurements. Carbon2Markets and Michigan State University are providing technical backstopping and supporting the project through the deployment of an on-line project management application to ensure project transparency of the carbon accounting and provide geospatial tools for efficiently managing and monitoring sequestered carbon in this dispersed small holder agroforestry system

(Source: FAO. 2010. *First Regional Workshop: Setting the Foundation. Linking Communities in Southeast Asia to Forest Voluntary Carbon Markets. Chiang Mai, Thailand* (Available at: http://www.carbon2markets.org/uploads/news/FAO_RAP_Agenda_Chiang_Mai_Sept_2010.pdf)

Students

Local universities and schools often become partners in forestry VCM projects. For example, Maharakham University in Thailand has provided technical backstopping for the Inpang Community Network's agroforestry programme (see Box 1) by helping to establish site boundaries, permanent sample plots, and conducting tree measurements. Forestry VCM projects can become learning opportunities for both students and community members who participate in trainings and capacity building activities conducted through such projects. Students may go on to become involved with other forestry VCM projects, and these guidelines provide the context to prepare them to take on other roles in project development and implementation.

Objectives of the guidelines

The **overall aim of the Guidelines** is to assist the groups listed above to decide whether or not to undertake a forestry VCM project, and, once a decision has been taken to proceed with such a project, to provide guidance on how to design and implement a project that:

- a) will benefit the community for whom it is intended;
- b) mitigates climate change;
- c) provides co-benefits; and
- d) for which all benefits are real, measurable, long-term, and sustainable.

The specific objectives are the following:

Objective 1: Promote knowledge and learning about the forestry VCM.

NGO workers, extension agents, and advisors who work with local communities can familiarize themselves with the forestry VCM project cycle in order to build their own ability to provide good, sound advice to their local partners.

Objective 2: Inform the decision-making process regarding development of forestry VCM projects.

Many questions need to be answered before a well-informed decision can be made on whether or not to start a forestry VCM project. These guidelines address many of these questions, including:

- What kind of knowledge and skills are needed to develop a forestry VCM project?

- Which different groups need to be involved, and what are their roles and responsibilities?
- What risks, challenges, and barriers may occur when undertaking a forestry VCM project?

It should be noted here that a favourable legal and policy environment is a prerequisite for a successful forestry VCM project. If a country does not permit any trade in carbon credits, for example, then community-level guidelines such as this will be of little use. This is addressed further in the 'Getting Started' checklists in Chapter 3.

Objective 3: Describe the steps of the forestry VCM project cycle.

All project stakeholders benefit from learning about the entire forestry VCM project cycle, from start to finish, so that they can understand how their specific role will affect particular aspects of the project. These are some of the steps that will be discussed in later chapters.

- Preparing the community;
- Designing the project;
- Fieldwork;
- Verifying the project's outcomes;
- Managing risks; and
- Marketing carbon credits.

Step-by-step guidelines

These step-by-step guidelines, grouped into chapters, have been designed to take the reader through the most critical issues facing potential project developers regarding engagement with the forestry VCM:

Chapter 1: Forests and climate change

Forests play a very important role in the global carbon cycle, because they can both be sources of emissions as well as carbon sinks. This chapter explains the relationship between forests and climate change, discusses the impacts of climate change on forest health, and introduces the six important forest carbon pools. It also considers the benefits that forests provide in addition to climate change mitigation.

Pre-project phase

Chapter 2: Project types and standards

The forestry VCM includes several different project types, which can be assessed against a number of different standards. This chapter reviews the four main standards used in the forestry VCM. It also presents a number of case studies: afforestation, reforestation and revegetation (ARR); Improved Forest Management (IFM); and Reducing Emissions from Deforestation and Forest Degradation (REDD).

Chapter 3: Getting Started

This chapter serves as a guide through the pre-feasibility phase. It provides an assessment checklist and reflects on the skills that will be needed to implement a forestry VCM project.

Project phase

Chapter 4: Project implementation: office work

This chapter identifies the paperwork associated with setting up a sound forestry project for the VCM. It describes what a Project Idea Note (PIN) should contain, and what documents have to be elaborated during each step in the project cycle. This includes the preparation of a Methodology, a Project Description (PD) or Project Design Document

(PDD), monitoring reports and documents relating to verification of carbon claims.

Chapter 5: Project implementation: field work

This chapter covers actual project implementation and deals with some of the basic field activities, such as: boundary demarcation and mapping, inventory, stratification, measuring carbon pools, identification and quantification of leakage, stakeholder consultation and monitoring activities. The chapter concludes with references to websites where tools and additional guidance can be found.

Chapter 6: Identifying, managing and quantifying risks

Managing risk is crucial for guiding forestry VCM projects towards successful outcomes. All forestry VCM projects will face some risk, including forest fires, land-use conflicts, and corruption. This chapter outlines strategies for preventing and managing technical, financial, legal, political, and natural risks. A risk assessment tool is provided for potential project developers.

Additional information

Chapter 7: Further help and advice

This chapter includes lists of organizations and contact information for getting more advice on project design, financing, and legal issues. These resources will be useful for finding answers to specific questions not addressed in the guidelines, and should serve as a reminder that help and support is available from a variety of sources.

