

Plan Vivo Guidance Manual:

for Designing and Implementing Payments for Ecosystem
Services Programmes with Rural Communities

Updated February 2012



Plan Vivo

Improving livelihoods, restoring ecosystems

People and livelihoods

Ethical climate services

Ecosystems

Watersheds

PES

Native species

Biodiversity

Adaptation

Poverty Reduction

Community Rights

Participation

Transparency

Habitats

Plan Vivo Guidance Manual

For

Designing and Implementing Payments for Ecosystem Services Programmes with Rural Communities

Version 2.0
(Updated August 2016)



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the waterloofoundation*

Vivo Standard and its supporting procedures and guidance.

Version control

This manual supersedes all previous procedural documents in relation to the Plan Vivo Standard.

Using this manual

This manual is a guide for developing a Plan Vivo project. It is designed as an accompaniment to the Plan Vivo Standard and should be read with the Standard if the project is seeking Plan Vivo registration. Please Note: From time to time, the Plan Vivo Foundation may update this manual. Please make sure you are using the latest version.

If you are interested in developing a Plan Vivo project or think your existing activities could be eligible for registration, please contact the Plan Vivo Foundation.

The Plan Vivo Standard and supporting materials can be accessed via the website (www.planvivo.org), or by contacting the Plan Vivo Foundation:

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1. Introduction: Plan Vivo and PES overview

Plan Vivo is about supporting and empowering rural communities to sustainably manage their land and restore their local ecosystems. It is a method for developing and certifying land-use projects where communities receive payments for ecosystem services (PES). Rural smallholders and community groups implement activities on their own land. Projects are assessed against the Plan Vivo Standard, and independently overseen by the Plan Vivo Foundation.

In Plan Vivo projects, each participant creates a sustainable land-management plan called a *plan vivo*¹. Through *plan vivos*, participants combine existing land-uses and livelihood activities with improved land-use activities and practices.

Activities include:

- Afforestation and reforestation (using native or naturalised species)
- Agroforestry (inter-planting trees with crops)
- Forest restoration or rehabilitation² (Re-establishing the structure, productivity and species diversity of forest originally present, or re-establishing the productivity and some, but not all, of the species originally present)
- Avoided deforestation and forest conservation
- Other land-use activities with quantifiable carbon benefits (e.g. improved agricultural systems)

Participants enter into 'PES agreements' with the project coordinator, agreeing to follow their *plan vivo* in return for staged payments. The project coordinator carries out monitoring, and payments are made to participants meeting agreed targets. Ecosystem services are normally quantified and transacted using carbon as a metric. The project coordinator aggregates ecosystem services from participants and transacts to a PES funder, through the sale of Plan Vivo Certificates. The transaction process is summarised in Figure 1 below.

¹ The name '*plan vivo*' comes from the Spanish for 'living plan'; Plan Vivo originated in a project in Mexico.

² IUCN definition: <http://data.iucn.org/dbtw-wpd/edocs/FR-IS-005.pdf>

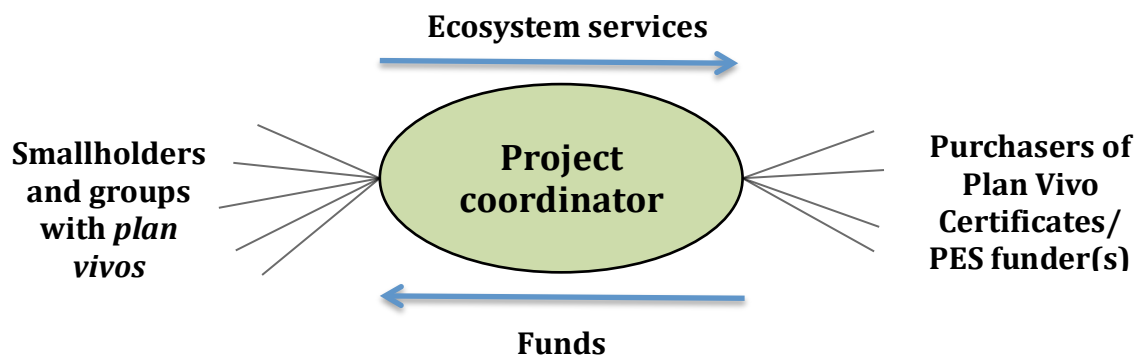


Figure 1: Transacting ecosystem services

1.1. Payments for Ecosystem Services Schemes

By entering into agreements with communities for following land-management plans designed to generate ecosystem services (where payments are based on performance), Plan Vivo projects are using a 'Payments for Ecosystem Services' or 'PES' method.

Provisioning Services	Supporting services	Regulating services	Cultural services
<ul style="list-style-type: none"> • Food • Fresh water • Fuelwood • Fiber • Biochemicals • Genetic resources 	<ul style="list-style-type: none"> • Services necessary for the production of all the other ecosystem services • Soil formation • Nutrient cycling • Primary production 	<ul style="list-style-type: none"> • Benefits obtained from regulation of ecosystem processes • Climate regulation • Disease regulation • Water regulation • Water purification 	<ul style="list-style-type: none"> • Nonmaterial benefits obtained from ecosystems • Spiritual and religious • Recreation and tourism • Aesthetic • Inspirational • Educational • Sense of place • Cultural heritage

Figure 2: Ecosystem services defined by Millennium Ecosystems Assessment (2005)

Ecosystem services are, in broad terms, the benefits that people derive from ecosystems. The Millennium Ecosystems Assessment³ categorised ecosystem services into four types: provisioning, supporting, regulating, and cultural (see Figure 2), depending on the nature of the service and benefit derived by society.

To be appropriate for a PES scheme, the ecosystem service must be under-valued, which in turn threatens its supply. In addition, PES schemes must be able to attract a funding source, so there must be at least one actor willing to pay for the ecosystem services. Ecosystem services most commonly transacted through PES schemes are carbon sequestration and storage

³ Available at: www.millenniumassessment.org

(climate regulation), biodiversity conservation, watershed services, and landscape beauty for recreation and tourism.

Essential features of a PES arrangement are:

- a) A voluntary transaction where:
- b) An ecosystem service or land use designed to secure the service which is paid for
- c) By one or more service buyer
- d) From one or more service provider(s)
- e) Only if the service provider continues to perform (results-based model).

PES schemes vary considerably, due to different project contexts and objectives. There is **no rigid template for a Plan Vivo project**. Beyond requirements in the Plan Vivo Standard, it is a flexible model and projects develop locally relevant systems.

Table 1 summarises elements that link all Plan Vivo projects, and ways in which they vary.

Despite this flexibility, experiences in Plan Vivo projects since the 1990s have led to many lessons being learned. New projects are encouraged to build on this experience. This manual contains examples and lessons from project experience to date. This manual will be updated over time to reflect new experiences.

Table 1: Common elements and variations in Plan Vivo projects

Aspect	Core feature/principle	Variations
Activities	Projects support communities in land-use planning for carbon, livelihood and ecosystem benefits.	Land-use activities depend on the project context. E.g. Smallholders planting woodlots and fruit orchards on individual plots/ groups with forest management plan for community forest
Participants	Smallholders and groups draw up land-management plans (<i>plan vivos</i>) for their own land	The participant type depends on how land is owned and managed in the project area E.g. Tree-planting project mainly targeting smallholders, OR forest conservation project mainly involving forest-user groups.
Payment mechanism	Participants receive staged, performance related payments via a transparent mechanism	How funding reaches communities depends on the local financial context. E.g. Only payments in cash/in kind may be possible. OR payments may be made via a local microfinance institution.
Project coordination set-up	A clear institutional structure with the capacity to mobilise and support communities	There is no prescribed institutional set-up. A project may be coordinated by a single NGO performing all functions, or several organisations sharing functions.
Livelihood and ecosystem objectives	All projects aim to empower communities to protect and restore ecosystems	Specific objectives depend on the project context. E.g. Project targets restoration of mangroves, OR project aims to increase food security through production of NTFPs.
Funding sources	Funding is needed for project development and on-going PES, coordination and verification	Projects may use a single or combination of different (market and non-market) funding sources. E.g. Only voluntary carbon finance AND/OR part of a publicly funded national scheme or international adaptation programme.
Size (number of participants and area)	Projects normally create a replicable system where participants can join over time (landscape approach).	No minimum or maximum size, although projects often pilot activities and scale up over time. E.g. from a small number of participants managing under 100 hectares, up to thousands of participants across multiple districts.

1.2. Why carbon? Using carbon as a metric for PES

In Plan Vivo projects, carbon is the dominant metric for monitoring, payments, and funding, because of:

- **Ease of quantification:** Compared to ecosystem services such as watershed protection and soil stability, carbon is **relatively easy to quantify and monitor** over time, and is a relatively fair way to distribute funds between participants⁴, therefore it represents an efficient unit to use in PES schemes.
- **Willingness to pay:** Markets and other funding mechanisms have developed where willingness to pay is related to quantification of and delivery of carbon services (or 'climate services'). Even where funders wish to support activities for reasons beyond, or even unrelated to carbon, a payment for a given number of tonnes of carbon service provision can provide a basis for the transaction, and encourage more transparency and efficiencies in the use of funds, and provide a means of monitoring performance and delivery of services.
- **Indicator of wider ecosystem benefits:** Where activities are designed sensitively e.g. using native species, delivery of carbon services in terrestrial (land-based) ecosystems is a strong indicator of the generation of a wide range of services and protection of biodiversity.

⁴ With some qualifications: a project may wish to build in additional incentives for slow growing-species with lower carbon benefits for example. Payments are not always linked directly to carbon, but carbon offers a good basis to start from.



2. Coordinating a Plan Vivo project (organisational framework)

Good, adaptive governance and clear lines of responsibility are key to the long-term success of a Plan Vivo project. PES schemes, particularly where they involve multiple buyers/funders and multiple land-users, require a strong intermediary institution with a clear organisational structure, ability for sound, transparent record keeping and long-term community supportive functions

Table 2: Functional areas of a Plan Vivo programme, showing the different coordinating and management functions undertaken

Theme	Functions
Administrative, financial, legal	<ul style="list-style-type: none"> • Keeping records of <i>plan vivos</i>, PES agreements, monitoring results • Managing project finance and administering payments (PES) • Managing Plan Vivo Certificates in the Plan Vivo registry • Reporting to the Plan Vivo Foundation • Coordinating project audits i.e. validation, verification
Technical	<ul style="list-style-type: none"> • Designing land-use activities with communities and quantifying carbon services of activities • Assisting development of and evaluating <i>plan vivos</i> by participants • Monitoring participants' progress • Providing technical extension support and training • Collecting data as required (e.g. growth data on sample plots)
Social	<ul style="list-style-type: none"> • Advising on the selection of target communities (e.g. assessing local capacity, identifying local conflicts or issues); • Assisting participants in providing evidence of land rights; • Conducting workshops with groups, discussing and communicating project requirements • Helping groups select representatives to liaise with the project; • Advising on issues such as mobilisation, payments • Facilitating the resolving of disputes or tensions

2.1. The project coordinator

A 'project coordinator', either an existing organisation or an organisation set up specifically to manage the project, carries out coordinating functions. PES schemes may be easier to set-up and deploy more quickly and cost-effectively **where an existing institution can take on the coordinator role** that has relevant experience e.g. with the target communities and with community development and land-use programmes, or managing project finance and administering payments to communities.

Where an appropriate institution does not already exist, setting up an intermediary institution should involve a consultation with relevant stakeholders. The PES scheme developers should consider how different stakeholders could be represented in the intermediary institution for example through membership, share holding, or board of directors.

It may be most effective if all three functions can be delivered by a single organisation. However, there may be advantages in terms of financial transparency to constituting an **independent Trust Fund** to safeguard funds held between the time of carbon sales and payments to producers. All Plan Vivo projects are required to show how PES funds are earmarked and safeguarded. Setting up a trust fund (or local equivalent) with independent oversight may be an effective way to meet this requirement.

The long-term aim of a Plan Vivo project may be to establish a regional centre to support PES activities across a large area for example across a state or even country. It is possible that the organisational framework of a project will shift over time, especially as the project expands. New organisations may become involved as the project expands into a different area, for example to coordinate training and monitoring in that area if they already have a presence there.

2.2. How are government authorities involved?

The extent of government or legislative support required for a Plan Vivo project will depend on the project area and intended scale of the scheme. Local schemes may be possible with very little government permissions, involvement or support. The ability of a scheme to scale up, and the potential to set up a national scheme, might depend on or be facilitated by a government's willingness to intervene and ultimately even provide enabling legislation.

Examples of how government authorities might be involved:

- Where seedlings are sourced from state run nurseries.
- Initial training and on-going extension support and meetings.
- Assisting with administrative or legal issues such as establishing land tenure.
- Linking the project up with other project or government activities where there are opportunities for efficiencies or lesson sharing.

2.3. Seeking external assistance

Projects may require external assistance to develop aspects of the project, in particular for technical functions. It is often the case that external assistance is required for early-on project design activities including:

- Developing carbon modelling and technical specifications;
- Helping to prepare project documentation, such as the PDD;
- Assisting with community training meeting, including communicating the concept of PES/carbon to communities and other local stakeholders;



- Building capacity of local organisations in general project management functions.

External support may be accessed from:

- Consultants (the Plan Vivo Foundation can provide advice if required, however projects are free to source external advice from any source they choose);
- Research institutes or universities;
- Government agencies/departments.

External individuals or organisations providing assistance should work with a view to transferring knowledge and skills to project staff so that support can be gradually withdrawn as the project builds capacity.

Local research institutes, universities, or forestry/agricultural organisations are likely to be able to provide valuable input during project development, in particular to access data or advice on selection of activities and quantifying carbon services such as:

- Biomass surveys and carbon modelling methods and data;
- Other information on land-use trends;
- Information on appropriate species use and availability;
- Providing advice on particular technical issues or management strategies.

These actors may also be able to undertake an on-going role in technical functions such as extension support, monitoring or other functions such as biodiversity surveys.

3. Identifying and engaging target communities

Target groups are the groups that the project proposes to benefit through engaging them in land-use planning. For example, a project might target farmer cooperatives in a particular region, or communities living around an area of threatened forest. Plan Vivo programmes usually pilot activities with an initial group, and roll out activities as capacity is built, and resources mobilised.

It is recommended to pilot activities with groups that already have the **capacity to mobilise and organise** members. These groups are likely to be more able to participate effectively in training and planning.

Engaging target groups requires knowledge of the local socioeconomic and environmental background. Where project coordinators have not worked with communities in the area before, they should consider working in partnership with a local community-based organisation (CBO) or employing a local social assessor to assist in organising initial workshops and training.

The following questions should be considered:

1. Are there established groups (e.g. women's groups, farmers cooperatives) through which the project could mobilise participants? To date, Plan Vivo projects have in particular found targeting women's groups a successful model.
2. Are members of the group able to provide evidence of stable land-tenure?
3. Are there any local rules or customs which could affect participation, e.g. are women able to participate?
4. How easy is it to conduct effective communication in the area (ease of access, level of remoteness)?
5. Do groups have technical experience e.g. with nursery activities, forest management?
6. How effective is the group at reaching consensus decisions (this is particularly important when activities are to be implemented on community land)?
7. Are there any on-going disputes or conflict, which could affect or disrupt activities?
8. Are there local avenues for payments (e.g. microfinance institutions)?

3.1. Establishing land tenure

Stable land-tenure is an important pre-requisite of participation in a Plan Vivo project as the participating smallholder or group must be able to demonstrate that they have the right to transact ecosystem services, make decisions and implement land-use activities in the long-term.

If possible, land-tenure should be demonstrated through provision of a title-deed or equivalent legal documentation. However, in many cases demonstrating land-tenure in rural areas of developing countries is not straightforward and official documentation may not exist. There may be a traditional system of land allocation among locals which centres around local knowledge.

Where no official documentation exists, the project needs to develop a locally relevant method for checking the existence and stability of the land use rights of the participant. This might involve, in a traditional system for example, asking the relevant local leader to sign off on the *plan vivo* and/or PES agreement, as well as the land-owners surrounding the participant's land. This system may then avoid future disputes or confusion as to ownership of carbon services.

Improving relationships between communities and governments may be a necessary role for project developers, in areas where communities are managing government owned land, and in particular where no previous written agreements have been developed.

Project coordinators may be required to support processes such as:

- Developing **Memorandums of Understanding** on participatory forest management between authorities and community-level structures. MoUs should clarify mutual roles and

responsibilities, including whether any monies are due to the authorities in respect of forest income, and include clear timeframes. Time frames should be linked to management activities of cycles where possible in order to not create perverse incentives. For example, if a community has a user-right agreement for a forest area for 5 years, yet it will take 10 years for income streams to be properly developed, communities will lack incentives to plan effectively.

- Preparing **local codes of conduct** or guidelines on use of natural resources. Where possible, illustrated handbooks should be prepared in local languages.

Requesting the government for **clarity around laws** that may have unintended impacts on communities' ability to transact ecosystem services. For example, in some developing countries, private landholders own land and the products they generate, but this ownership only applies 'above ground'. The government retains rights to below-ground resources, presumably intended to legislate for rights to resources such as oil and minerals. It is not clear, however, how this law could be interpreted in the case of communities receiving payments for below ground carbon services e.g. from roots or soil carbon.

3.2. Explaining Plan Vivo and PES to communities

Participation in Plan Vivo is always voluntary, based on prior, free and informed consent (FPIC).

Initial community meetings are likely to have combined objectives of informing communities about a potential Plan Vivo project and assessing interest, and gathering information about communities and potential sites. Before going into the field, project partners should discuss

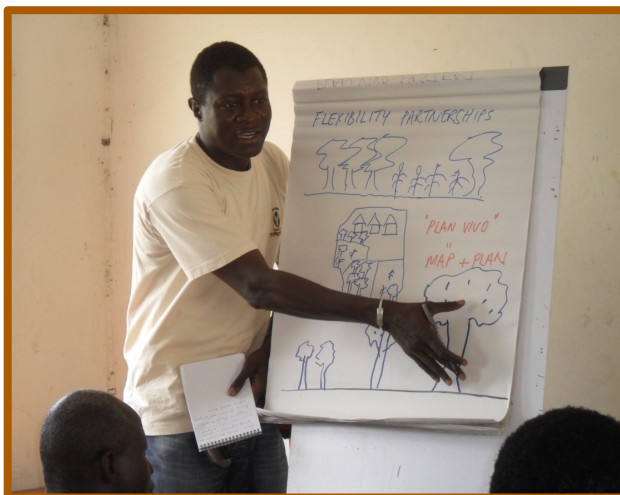


Figure 3: Plan Vivo introductory meeting with a village committee in Senegal (right)

these objectives and outline an approach and agenda for community meetings.

Target groups should have the opportunity to attend group-training sessions where the following themes are covered:

- What climate change is and how it could affect local communities and livelihoods;
- The benefits of alternative land-use practices and use of native species;
- The concept of carbon service provision;
- The Plan Vivo Standard and how communities can participate.

Important things to stress in preliminary meetings are that:

- Participation in the project is voluntary;
- Participation will not result in any transfer of ownership of the producer's land;
- Agreements entered into are long-term commitments.

Project partners may wish to set some ground rules for meetings, to ensure a consistent message is given, covering for example:

- **Who should give the message:** Where the project team includes local and external partners, it may be appropriate for the local project partners to lead discussions, especially where they are known by the communities.
- **Expectation management, including how to mention money/payments:** Performance-related payments are integral to explaining PES and the Plan Vivo model, so should normally be mentioned. However, in early stages of project design it is unlikely that any details will be known about payments. Project partners should consider in advance how to manage expectations around payment levels.
- **How to ensure inclusivity and participation:** Partners may need to consider methods in advance to ensure that different groups, for example women, have the opportunity to make their voice heard. Methods will be dependent on the local context and culture, but for example, the formation of smaller break-out discussion groups after an initial presentation, where women can form a separate group to ask questions and discuss more freely, may be effective.

Minutes should be taken from meetings (along with a list of attendees) and recorded for future use, in order to develop strategies to address common issues, and to provide evidence of consultation to auditors of community participation.

Projects should consider producing a simple fact sheet containing the main aims, rules and processes of the project for use in training and to leave in the community, including information on how to get in touch with a project representative.

Supporting documentation:

[Tools Community Meeting \(Social Assessment Guidance Manual\)](#)

3.3. Engaging and informing other stakeholders (non-participants)

Initial project planning should also involve the engagement of relevant project stakeholders, for example local government and forestry authorities, to inform them about the project plans and build relationships that may support the project's development over time. Project coordinators should ensure that they are abiding by all regional, national and international regulations before implementing activities.

Key stakeholders to inform and consult with may include:

- Government actors (central, sub-national and local)
- Any regional or national Climate Change Focal Point
- Rural councils or other local devolved bodies
- Other NGOs working in the project area or with target communities on environmental or social development activities.

Objectives of initial meetings may include:

- Opening channels of communication and informing stakeholders about the project, which may be a legal requirement in some cases.
- Gathering information about the project area and communities (e.g. information about land rights, applicable laws and customs, local governance procedures).

- Finding out about other tree-planting or natural resource management initiatives operating in the area.

Understanding how stakeholders' activities might overlap, complement or conflict with proposed project activities and resources best used, and the potential for any collaboration or partnership to make best use of resources and existing support networks. Local forestry authorities may, for example, be able to support project activities from a resource and training perspective



4. Selecting and designing project activities

Plan Vivo activities are always designed in consultation with target communities, with a view to meeting local needs and priorities. This ensures that activities are suitable for local conditions in the target areas and increases the likelihood that outcomes will be valued and ecosystem services generated in the long-term. A single Plan Vivo project may involve a range of different activities addressing different issues, and activities can be added to over time.

This involves setting up meetings with communities in the early stages of project development and visiting potential project areas with community representatives. In addition to consulting with communities, the project team should assess the viability of implementing potential activities in the proposed area through gathering available information on:

Prevailing agricultural systems and other typical land uses in the community;

Other relevant economic activities such as proximity to markets;

What tree species are native to the area, specifically those which show good performance or have multiple benefits, for example for timber or fruit.

Such information may be available from:

- Local knowledge;
- Local research institutes or universities;
- Government departments and regional/national surveys;
- Other land-use projects in the area.

Issues to discuss with communities with a view to selecting activities should include:

- The suitability of activities with respect to local livelihood and energy requirements;
- The potential of activities to generate carbon services;
- Limiting factors such as infrastructure, land tenure, technical expertise, etc.;
- What products groups or individuals currently generate or want to produce (e.g. timber, coffee, fruits, honey) and will be able to gain income from;
- What resources (land, labour and capital) will be required e.g. fencing for protection from livestock. Are natural 'live' fencing options (i.e. using species that animals avoid) or use of ditches possible?

- Seedling availability for planting systems;
- Ecological considerations: water availability, presence of termites.



Figure 4: Restoring pine-oak forest in Mexico (left), and growing mango and citrus seedlings in Malawi (right)

4.1. Selecting and designing project activities

Communities should always be involved in species selection for planting activities and have the opportunity to propose species of interest to them. **NB/ Plan Vivo Certificates can only be generated from planting native or naturalised tree species.**

Before discussing species selection with communities, the project coordinator should consider how the question of selecting species will be framed and if anything will be ruled out from consideration.

Considerations might include:

- How to ensure **diversity** of species in the project;
- Whether **declining species** could be targeted i.e. relevance of conservation status;
- The importance of **practical aspects** such as availability of seedlings and fencing;
- The desirability of identifying species that communities have **experience** with;
- The importance of selecting species that have **use value** (e.g. nitrogen fixers where communities have poor access to fertilisers);
- What **local extension support** is available to support activities;
- How using that species would complement and be additional to other natural resource management initiatives in the area.

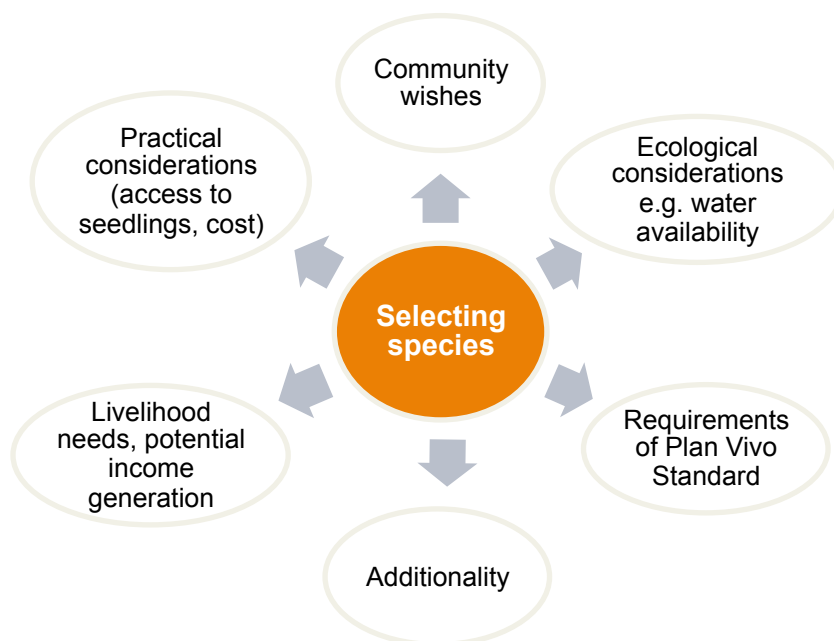


Figure 5: Factors influencing species selection

Project example | Selecting species in Senegal:

Communities in the area had already received a significant amount of support and had widespread experience in planting **mango and cashew trees**. This led to an agreement that the project should be predominantly about planting native species, and that this should be communicated to communities early on, otherwise it was thought that communities would focus on those species, and information gathering on native species would be less fruitful. It was also provisionally decided that mango and cashew should be excluded from the initial project phase, as planting these species is already relatively common practice so would have **low additional impact** in terms of generating ecosystem services.

Community discussion groups led to the identification of several native species for potential inclusion in the project. Different species were identified in groups with men and women. Women’s discussion groups tended to focus on native species that could provide sources of food and medicines.

Additional resource

World Agroforestry Centre Agroforestry Database:

This database provides detailed information on agroforestry tree species in order to help field workers and researchers select appropriate species for agroforestry systems. For each species, the database includes information on identity, ecology and distribution, propagation and management, functional uses, pests and diseases.

<http://www.worldagroforestry.org/resources/databases/agroforestry>



5. Site selection

5.1. How many sites?

The scale of initial participation may be determined by factors such as:

- Funding available for entering payments for ecosystem services (PES) agreements;
- The experience of the project coordinator in fulfilling the different functions;
- The level of initial community buy-in, and understanding of the project;
- The amount of available land for project activities.

Piloting activities and scaling-up gradually is an effective way to test project design and mitigate risk, giving the opportunity to identify issues early on and adjust procedures, and build community buy-in. Piloting at a smaller scale is particularly recommended where the project coordinator is a new organisation or has little experience with supporting communities in land-use planning or administration of funds. **Error! Reference source not found.** shows an example of how a Plan Vivo programme grew over time, as it built capacity in marketing Plan Vivo Certificates and fulfilling coordination functions.

5.2. Setting site selection criteria

Projects should consider developing a set of guiding criteria or principles for identifying target sites. These are likely to mirror or overlap considerably with how target communities are identified. It is advisable, as with selection of target groups, to start with areas with lower implementation hurdles in order to test systems, before moving into more challenging areas. For example a project may be able to start in areas with more water availability or closer to nursery operations, and expand from there, or begin in areas with clear land tenure, before tackling areas with more complex issues.

Site selection criteria could include:

- Clarity and stability of land tenure;
- Availability of land for activities;
- Availability and accessibility of water;
- Willingness to engage in Plan Vivo activities;
- Existence of functioning, established community groups e.g. women's groups;

- Local experience of forest management/tree-planting.
- Presence of local constraints such as termites, poor soils, salinization;
- For planting, local presence of tree nurseries/availability of seedlings;
- Inclusivity – which sites would ensure e.g. different ethnic groups are represented?
- Administrative boundaries/rural council inclusivity;
- Location in relation to protected areas (e.g. if objective of project is to reduce pressure on protected areas) or areas of High Conservation Value;
- Size, remoteness and potential for scalability –inclusion of larger or more concentrated sites may help manage transaction costs;

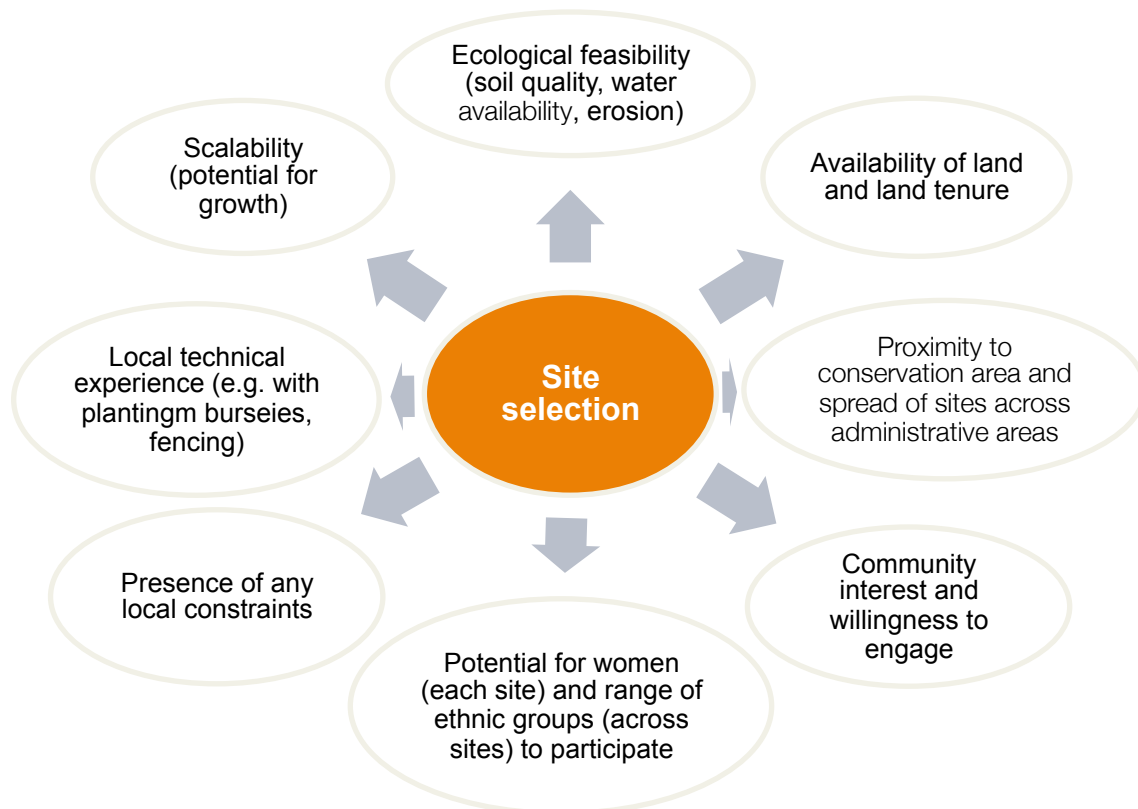


Figure 6: Factors influencing site selection

Project example | Selecting sites in Senegal

Four pilot sites were selected for piloting Plan Vivo afforestation and agroforestry activities with communities in Senegal using the following process:

The project team visited 14 potential sites (villages or small village clusters) within a 2 km radius of Patako Forest. Site selection criteria were discussed before and after. A guiding principle was agreed that sites should have a 'fighting chance of success'. Following visits and community discussions, the team identified and weighted seven essential criteria for initial sites, which were used to assess and rank each site:

- Availability of land for tree-planting (0-10 points).
- Availability and accessibility of water (0-10 points).
- Proximity to Patako Forest (0-5 points).
- Willingness to engage in Plan Vivo activities (0-10 points).
- Existence of a women's organisation (0- 5 points).
- Willingness to make land available to women (0-10 points).
- Local experience of tree planting (0- 8 points).
- Presence of local constraints (0-5 points).

Local constraints identified included termites, poor soils, water quality and availability and salinization i.e. mainly ecological issues. Most families in the area owned land with stable tenure. Engaging with the Land Tenure Management Commission, a decentralised body for registering land transfers, was discussed as a potential process for checking security of tenure.

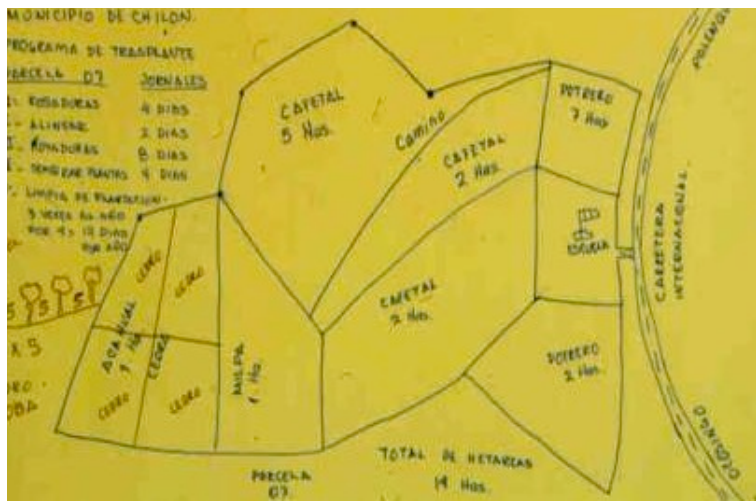
Following scoring, the top ranked sites were then screened to ensure:

- Ethnic inclusivity –whether different ethnic groups were being represented.
- Pilot sites covered both rural councils in the area.
- Pilot sites were not too concentrated.
- At least one site had good potential for growth.

Supporting tools & documentation:

High Conservation Value Resource Network - Information and advice on how to use the HCV concept in practice, including identifying the HCVs which are present in a given area, manage and maintain the HCVs it supports, and monitor the HCV area to ensure that the management practices are effective.

<http://www.hcvnetwork.org/resources>



6. Plan vivos: Making and evaluating land management plans

Plan Vivo is about empowering rural communities to protect and manage their natural resources. Each participant in a Plan Vivo programme draws up their own *plan vivo*, either as an individual for smallholder owned land, or as a group for community land.

Key principles:

- The participant must lead the development of their own *plan vivo*
- *Plan vivos* must be written in a format that enables the project coordinator to quantify ecosystem services that the activities will generate, and assess whether the plan is realistic and achievable for the participant

The *plan vivo* itself is an annotated map of the participant's land that shows current and proposed land-uses, including where Plan Vivo activities are to take place. It may be a hand drawn map whose boundaries and area have subsequently been verified by the project technician using a GPS unit, or it may be a boundary generated by a GPS, that has then been annotated by the participant.

Plan vivos are evaluated by the project coordinator, modified if necessary, and registered, meaning the participant is eligible to enter into an agreement for provision of ecosystem services.

6.1. How to create a *plan vivo*

Each *plan vivo* is a tool that should be used by the landholder and the project coordinator to plan, track and monitor activities over time. In order to do this, the following elements should be included:

1. The name and location of the participant;
2. The total land-area and boundary;
3. Land-use activities – this may be more than one activity (which should relate to the project's technical specifications, e.g. mixed species woodlot and mango orchard);
4. Management objectives;
5. For planting activities: species and planting density;
6. Significant management activities including thinning or harvesting;
7. Estimates of resources needed to implement activities.



Figure 7: An example Plan Vivo for mixed species reforestation, Uganda.

The *plan vivo* should show the boundaries of the participant's land, and within that the boundary of the area for the project intervention (agroforestry), and an indication of the other land-uses in the remainder of the land.

All land-uses should be marked, either directly or using a legend, to allow tracking of changes over time – e.g. from agriculture to agroforestry.

It is important that *plan vivos* show land-uses surrounding Plan Vivo activities, including within the participant's area of management, in addition to showing where Plan Vivo activities will take place. This enables monitoring of broader impacts on land-use in the area, to ensure that carbon services generated by Plan Vivo activities are not lost in other management areas e.g. due to displacement of agricultural activities (leakage).

6.2. Evaluating plan vivos

The project coordinator should assess each *plan vivo* before becoming the basis of a PES agreement, to **ensure it is environmentally, economically and socially viable**.

Evaluation of a *plan vivo*, involves checking that:

- All the required information is provided and reflects ground conditions;
- The activities proposed are clear and consistent with approved technical specifications for the project (e.g. correct species and spacing for planting activities, permissible extraction plan for conservation activities);
- The activities are appropriate for the participant's land and livelihood needs
- The implementation of the proposed activities will not reduce the participant's overall agricultural production below sustainable levels.

The latter requirement is essential, as it ensures that participants will have sufficient land to provide for themselves after activities are implemented. This is important not only to ensure that the plan promotes sustainable livelihoods, but also to ensure that an overly ambitious tree-planting or forest-protection plan does not lead to displacement of activities and loss of carbon stocks in other areas (leakage).



7. Developing a Payment Mechanism

Prior to entering into agreements to transact ecosystem services from communities, the project must first establish a financial and administrative structure that provides a proper legal basis for transacting carbon and safeguarding community funds in the long-term.

7.1. Institutional requirements: a 'Plan Vivo fund'

The project coordinator is responsible for administering the **Plan Vivo Fund**, which receives PES finances from funders, e.g. buyers of Plan Vivo Certificates, and holds those funds in trust until payments are due to participants.

The specific legal structure for a Plan Vivo Fund will depend on the national legal and banking context. In the case of a not-for-profit NGO or charity, it may simply be a separate bank account existing solely for Plan Vivo purposes, or in the case of a commercial company should be a trust fund (or local equivalent) with independent oversight.

Considerations will include:

- **Transparency and accountability:** PES funds should be ring-fenced in a way that ensures they are protected and administration of payments is transparent, and the project coordinator is accountable to communities for protecting funds.
- **Ease of access** and administration: how easily will the project coordinator be able to access funds and make multiple payments (e.g. in a smallholder project)?
- **Stability of currency:** the project should seek to hold PES funds in a stable currency.

Project Example, Scolel'te, Mexico

The Plan Vivo Fund is the Fondo BioClimático (FBC), a non-incorporated body under Mexican banking law. The Fund itself does not own the carbon or money deposited by purchasers, but holds these resources in trust until obligations have been fulfilled, and monitoring targets achieved. A proportion of the funds is used to cover project technical and administrative costs.

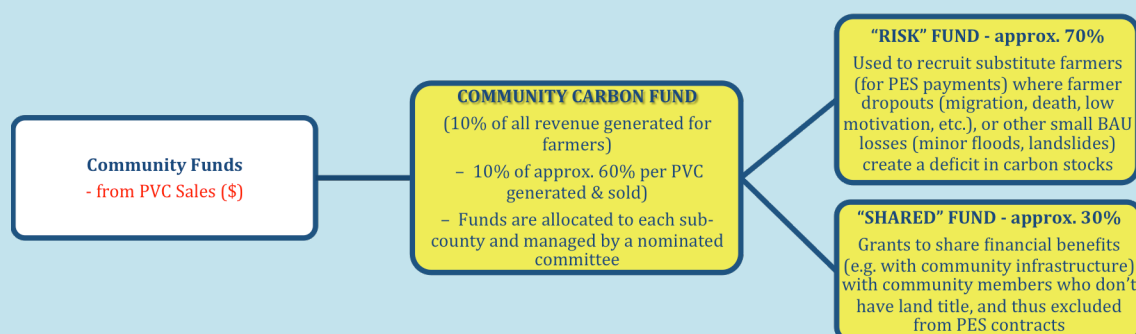
How funds reach communities will depend largely on locally available avenues and local preferences. The mechanism for payment should always be agreed with communities in advance, giving the opportunity to discuss different mechanisms and channels for funds. Communities with poor access to financial institutions, for example, may wish to receive training, materials, or other support in lieu of cash payments. Non-cash incentives, or a combined approach, may be more locally appropriate for various reasons. Benefits might also accrue to communities in the form of support for local microenterprises or other initiatives, particularly in the case of forest conservation projects where alternative livelihood development is key to reducing emissions from deforestation.

In the absence of banking facilities, there may be other institutions such as microfinance institutions that could be used to transparently transfer funds. Projects should consider any risks involved with making cash payments (e.g. risks to project staff), and benefits to making payments through institutions, such as encouraging financial planning, and capitalizing local financial institutions.

Project example: Distributing funds through existing channels in Uganda

In the Trees for Global Benefits project in Uganda, smallholder farmers are assisted to open accounts with local cooperative banks and micro-finance institutions, which has helped the project to establish a transparent payment mechanism and also had positive knock-on effects on the wider community. Carbon payments have helped to capitalise local financial institutions and improve the availability of microloans in the area. The presence of trusted local project representatives within project areas has been key to ensuring payment mechanisms function well and enabling communities to communicate any issues to the project coordinator.

A community fund was established as part of the payment mechanism in 2009, six years after the project began, in response to community wishes. In discussing project risks, participants decided that, should an individual lose their trees due to no fault of their own, for example because of a flood or fire, they should be able to access funds for re-planting. Participants also wished to pool resources to invest in materials such as saws. This led to agreement that 10% of each participant's total payment would be deposited in a Community Carbon Fund.



7.2. Principles of benefit-sharing

- **Between communities and the project coordinator**

60% or more of the proceeds from selling ecosystem services in a Plan Vivo project should accrue to communities providing the services. The balance can be used to cover the costs of project administration, monitoring, verification, certification and any other project implementation and management costs.

- **Within the community (in the case of group *plan vivos*)**

For group *plan vivos*, various individuals and groups will be responsible for implementing different project activities and may have varying levels of input, costs and responsibility. For example, one *plan vivo* for an area of forest may incorporate beekeeping activities by one group, patrols by a second group and improved agricultural activities by a third group.

The community, with assistance from the project coordinator, must agree on how PES funds or other benefits will be shared. The project coordinator is likely to act as the facilitator in these discussions but ultimately the decision should come from the community. The benefit sharing arrangement should take account of the level of input by each group, the resources required for the different activities, and what is perceived as fair and appropriate by the groups themselves. The project coordinator should also consider how the benefit-sharing agreement includes marginalised groups, such as women, landless households or different ethnic minorities.

Project example | Sharing benefits to maximise inclusivity and climate benefits

The Himalayan Community Carbon Project in Nepal, has developed a system of locally agreed land allocation within community forests to ensure that poor landless households receive benefits. First, households are categorised according to wealth (e.g. poor, very poor) using simple, locally defined indicators (e.g. ownership of land, number of sources of income). Secondly, the poorest households are allocated land in the community forest area for productive use (e.g. cardamom production). A central benefit of this approach in relation to community carbon, is that it puts small pockets of land into sustainable management, that otherwise would not be i.e. there is potential for strongly additional carbon benefits from engaging the most poor forest users in a wider project framework.

- **With third-party organisations e.g. government bodies**

The priority in Plan Vivo projects should be to meet obligations to incentivise communities and cover project management costs. However, third-party organisations may have roles in projects that require them to be included in benefit sharing. For example, if the project activities are taking place on state land where communities have user rights, government authorities may receive payments for being involved in the management of the forest, or in extension or monitoring functions. The appropriate level of payment for government bodies/ officials should be guided by their level of actual involvement in project activities, such as participatory planning and community capacity-building, monitoring, patrolling, etc., and the extent to which additional resources are required to fulfil these roles (or carry out existing roles better).

7.3. What price should communities receive for a tonne of CO₂?

Various factors will influence the payment level agreed with communities:

- Where projects are primarily funded through the sale of Plan Vivo Certificates, a major consideration will be what buyers are willing to pay for carbon services and what proportion of those funds the project coordinator requires for operations.
- The payment level offered needs to be capable of incentivising the activities proposed, taking into consideration local income levels, the resources required by communities to undertake activities, and the expectations of the communities themselves. This is not an exact science and will involve discussions with the communities involved and necessitate a good level of local knowledge.

7.4. PES agreements (contracting for ecosystem services)

Rewarding land-managers and groups for the generation of ecosystems services means there must be an agreement between the entity making payments for the services (the project coordinator) and the individual or group undertaking activities to generate or protect those services. This can be described as a 'service agreement' or 'PES agreement'.

In Plan Vivo projects, the project coordinator signs PES agreements (or 'sale agreements', 'contracts for ecosystem services' etc.) with individual smallholders and/or with community groups, depending on the level at which land is managed. PES agreements in Plan Vivo projects are basically contracts made between the project coordinator and each individual smallholder or community group in relation to a specific *plan vivo*.

PES agreements state the responsibilities project participants have to implement and manage activities. They also state the responsibilities of the project coordinator, for example to monitor activities, make payments and provide appropriate support to communities.

PES agreements should always contain the following information:

- Name of the smallholder or group, including lead contacts authorised to sign group agreements on their behalf.
- Reference to the *plan vivo* which the agreement is based on (ID number and location, ideally with GPS coordinates).
- Any information on land tenure required as part of project procedures.
- Amount of carbon services (tCO₂e) for which participants receive payments.
- Payment amount and schedule (intervals).
- Payment conditions or milestones (i.e. monitoring targets)
- For group *plan vivos*: summary of relevant benefit-sharing details agreed between participants and project coordinator.
- The payment mechanism e.g. bank details.
- The date of signing and implementation of activities.

Supporting documentation:

Example PES agreement – see Appendix 1

NB/ Project coordinators should remember to subtract the carbon buffer from the carbon services contracted for project sales (10-30% of the carbon services provided by each

participant are not eligible for sale, they form a reserve called the 'risk buffer', which protects the project against any unexpected losses of carbon stocks).

7.5. What is the trigger for signing PES agreements?

The conditions under which a project coordinator may sign a PES agreement for a given *plan vivo* will depend on the following factors:

- The availability of buyers and/or initial project investment
- In the absence of upfront purchasers for the carbon services, the ability of the project coordinator to take on the responsibility of making payments and absorbing or subsidising project coordination costs
- The capacity of the project coordinator to meet the monitoring, administration and support functions of signing that number of PES agreements

In order to participate in the project, smallholders or community groups need to meet the basic requirements for participation in the Plan Vivo Standard, in that they have stable, long-term ownership or user rights to land, and are willing to undertake Plan Vivo activities and enter into a long-term agreement.

Beyond those basic requirements, a project may need to develop its own eligibility requirements or other screening processes to determine which participants receive priority. The project is unlikely to have unlimited funds or capacity to enter into PES agreements with every interested smallholder or group in the project area. The first participants within the target groups may simply be those who submit management plans (*plan vivos*) first (i.e. a 'first come first served' basis).

Allocating sales across the project is the responsibility of the project coordinator. This requires a good level of local knowledge, as it will involve an assessment of which groups and communities are most prepared to enter the Plan Vivo System. It will be necessary to consider the various factors described in this manual when selecting target communities and sites.

Example: A community has a *plan vivo* with a carbon benefit of 20,000 tCO₂.

Scenario A: The project coordinator does not sign a sale agreement until they have sold the entire 20,000 tCO₂ to a buyer in advance. Once the project has sold the 20,000 tCO₂, the coordinator can enter into a sale agreement with the community for the total 20,000 tCO₂. The price agreed with the community is informed by the sale price.

Scenario B: The project coordinator does not sell all (or any) of the carbon services in advance, but still enters into a sale agreement with the community for the total 20,000 tCO₂. This means the project coordinator is taking on the risk of delivering payments and monitoring over the course of the sale agreement before securing carbon finance to cover these payments.

The Plan Vivo Foundation advises project coordinators to only take on this risk where they have marketing capacity to sell the corresponding carbon services, or have the resources to cover payment and monitoring obligations in the meantime. Plan Vivo Certificates will only be issued where the project can demonstrate this capacity.



8. Information management

Plan Vivo projects require a good administrative and data management system to record and track project information and documents including:

- *Plan vivos*
- PES agreements
- Administration of payments to producers
- Outcomes of monitoring including details of any corrective actions
- Minutes and outcomes from community meetings

Projects can use their own system or use the standard Plan Vivo database developed for tree planting activities. The database allows for data to be easily collated and reviewed and is designed to produce the reports needed for annual reporting to the Plan Vivo Foundation.

In the Plan Vivo database:

- Each participant has an automatically generated ID number.
- The carbon services of each *plan vivo* can be automatically generated by entering in figures from technical specification at the outset (where carbon services are quantified on a per hectare basis)
- Project coordinators can generate various reports, e.g. to find out which producers have payments due, or how many producers failed monitoring and for what reasons.

Supporting tool:

Plan Vivo Database (Microsoft Access File)

Available upon request from Plan Vivo Foundation



9. Monitoring impacts beyond carbon

NB/ Guidance on monitoring carbon impacts in a Plan Vivo project can be found separately in technical guidance materials.

Monitoring 'non-carbon' social and environmental impacts of a project is likely to be crucial to the long-term success and sustainability of the project. Activities that enhance local biodiversity or generate other ecosystem services such as water and soil conservation could further improve sustainable livelihoods in rural areas. Likewise, activities providing social benefits are more likely to become embedded in the community and generate a sustainable land-use change and lasting climate impact.

In 2015, the General Assembly of the United Nations adopted a set of 17 sustainable development goals (SDGs)⁵ to drive forward the international development agenda, supported by UN agencies and all other international development partners. Plan Vivo projects are expected to contribute to a wider set of outcomes (including many of these SDGs) for poor, rural people beyond simply climate services as measured by reductions in CO₂ emissions or CO₂ sequestration. These are sometimes called co-benefits and to meet the requirements of the Plan Vivo standard, projects have to demonstrate the provision of climate services as well as positive socio-economic impacts of different kinds.

Projects that can demonstrate and quantify positive socioeconomic and environmental impacts over and above carbon are also more likely to be attractive to PES funders.

Further information on conducting a socioeconomic impact assessment can be found in the following document.

Supporting documentation:

Plan Vivo Socio-economic Manual

www.planvivo.org/project-network/project-resources/

⁵ <http://www.un.org/sustainabledevelopment/sustainable-development-goals>

9.1. Monitoring ecosystem impacts

Plan Vivo activities are designed to generate ecosystem services beyond carbon, for example via the use of native and naturalised species in planting systems or assisted natural regeneration in avoided deforestation interventions. Carbon is used as a metric to indicate generation of ecosystem services. Directly monitoring non-carbon ecosystem services such as water, soil and biodiversity benefits is often challenging, as such benefits can be difficult to quantify and to attribute to project activities.

However a number of approaches and tools exist to assist projects with monitoring of ecosystem services beyond carbon, in particular in monitoring changes in biodiversity. Some resources are listed in the box below. Projects should seek to adapt methods to their circumstances and objectives, and develop locally relevant indicators in consultation with communities wherever possible.

Project coordinators should also, as a matter of good practice, contact local research institutes, or other relevant local organisations, including other land-use programmes, at an early stage to learn whether there are existing monitoring programmes or survey data that the project can participate in or use.

Supporting tools & documentation:

- Landscape Measures Resource Centre: A collection of resources and case studies on landscape level assessment of conservation and rural livelihood programmes <http://landscapemeasures.info/>
- High Conservation Value Resource Network: <http://www.hcvnetwork.org/resources>

9.2. Involving communities in monitoring

Projects are encouraged to recruit community technicians from local communities over time and provide training in order to delegate monitoring responsibilities.

Where monitoring activities are delegated to communities, the following procedures and principles should be observed:

- Training is given to each community technicians on how to accurately take all necessary field measurements;
- Where community technicians are themselves participating in the project and have responsibilities under a PES agreement, they do not carry out monitoring of their own activities;
- Communities are clear and have agreed upon any payment or incentive they are to receive for participating in monitoring;
- A register is kept of community technicians authorised to carry out monitoring, along with what training they have received (important for verification).
- There is an internal process for the periodic evaluation of performance and accuracy of community monitoring (e.g. a 10% sample of community technicians' work verified annually).

APPENDIX 1: EXAMPLE PES AGREEMENT

PLAN VIVO PES AGREEMENT [NAME OF PROJECT]

Preamble

This agreement was made on [date] between [project coordinator] of [address] and [participant/group] of [address]. Its purpose is to provide terms and conditions for the sale of ecosystem services under the Plan Vivo project, [Project name].

Whereas [project coordinator] has agreed to buy ecosystem services from the participant under the Plan Vivo Project at the price and conditions laid out below;

Whereas the Participant [is the owner/has long-term use rights] over the piece of land described in Table A of this agreement, and has registered Plan Vivo number [xxxx], attached in Annex in respect of the same piece of land, which has been evaluated and approved by [project coordinator] for implementation under the Plan Vivo project.

Agreement

1. This agreement shall remain in force for the period set out in Table B.

The [project coordinator] agrees:

1. To carry out monitoring of the participant's land over the period and against the targets laid out in Table B, and according to its procedures as specified in the project manual.
2. The agreed payment, set out in Table A, shall be paid to the participant by the project coordinator in instalments set out in Table B where results of monitoring show that the corresponding targets have been met.

The **participant** agrees:

1. To implement activities (summarised in Table C) and carry out management actions as set out in their *plan vivo*, and to implement any corrective actions prescribed during the monitoring process.
2. To deposit [percentage] of their calculated carbon benefit in a carbon risk buffer maintained by [project coordinator].
3. To refrain from entering into any ecosystem service/carbon sale agreement with any other party in respect of the same *plan vivo* and its associated activities
4. To inform the project coordinator of any circumstances arising which prevent them from continuing with any of the management activities in their *plan vivo*

Table A: *Plan Vivo* details

Participant (specify if group/Individual, if group, specify representative)	
Location	
<i>Plan Vivo</i> ID Number	

Total Carbon benefit (tCO ₂)	
Buffer (x %)	
Total Carbon benefit eligible for payment (total minus buffer)	
Price (e.g. \$/tCO ₂) if applicable	
Total Payment (\$)	
Account/other payment details	

Table B: Activities (modify for specific activity as required, e.g. planting or avoided deforestation)

Activity (and technical specification used)	Area (Ha)	Species (if applicable)	Proposed date of implementation

[The project may wish to record other information which are variables in the technical specification, such as management objectives, or rotation periods]

Table C: Monitoring Schedule (example for tree-planting activities)

Time (years after implementation date)	Monitoring Target	Percentage of total payment due (%)	Payment (US\$)
0	50% plot established	30	
1	100% plot established	20	
3	Survival not less than 85%	20	
5	Average DBH not less than 10cm	10	
10	Average DBH not less than 20cm	20	

Participant:

Signature:

Name:

Date:

.....

.....

Project Coordinator:

Signature:

Name:

Date:

.....

.....

Glossary of terms

Adaptation - Initiatives and measures to reduce the vulnerability of natural and human systems against actual or expected climate change effects (IPCC definition)

Additionality - Land-use activities are additional if they cannot, or are very unlikely to take place without the intervention and support of the project

Afforestation - The direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land

Agroforestry - Growing trees and crops on the same piece of land

Baseline - The starting reference point from which the carbon services of project land-use activities can be measured (also referred to as the 'without project scenario'). The baseline includes an assessment of carbon stocks before project intervention, and of how carbon stocks are likely to change over time in the absence of the project

CO₂ - (Carbon dioxide) A naturally occurring gas and by-product of burning fossil fuels or biomass, or land-use changes and industrial processes. It is the principal anthropogenic greenhouse gas that affects the Earth's radiative balance.

Carbon pool - A system that can store and/or accumulate carbon e.g. above-ground biomass, litter, dead wood and soil organic carbon

Carbon sequestration - Direct removal of carbon dioxide from the atmosphere through land-use change, afforestation, reforestation and/or increases in soil carbon (biological sequestration only).

Climate change - A change of climate which is attributable directly or indirectly to human activity (UNFCCC Article 1)

Crediting period - The length of time over which carbon services are calculated.

Deforestation - The direct human-induced conversion of forested land to another land-use or the long-term reduction of the tree canopy cover below the minimum 10% threshold

Double-counting - Measuring or selling a unit of carbon service more than once

Ecosystem - A community of plants and animals (including humans) interacting with each other and their environment

Ecosystem services - Ecosystem services are, in broad terms, the benefits that people derive from ecosystems. Within Plan Vivo projects, ecosystem services are the positive environmental impacts of project activities including carbon sequestration and storage (climate regulation), biodiversity conservation, watershed services, and landscape beauty for recreation and tourism.

Forest - A land area of more than 0.5 ha, with a tree canopy cover of more than 10%, which is not primarily under agricultural or other specific non-forest land-use. In the case of young forests or regions where tree growth is climatically suppressed, the trees should be capable of reaching a height of 2m in situ (Kyoto Protocol)

GHGs (Greenhouse gases) - Six gases are defined in the Kyoto Protocol as contributing to climate change: carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons and sulphur-hexafluoride. These contribute to the greenhouse effect

High Conservation Value - High Conservation Value areas are critical areas in a landscape which need to be appropriately managed in order to maintain or enhance High Conservation Values (HCVs).

IUCN - International Union for Conservation of Nature

Land-use activity - The overarching project intervention e.g. forest conservation, afforestation, agroforestry, grassland management, that generates ecosystem services

Leakage - The unintended change (normally thought of as being negative although positive leakage can occur) of carbon stocks outside the boundaries of a project resulting directly from the project activity. The change may be an increase in emissions or a decrease in sequestration, resulting in a lower carbon benefit being created by the project

Mitigation - Implementing activities or policies to reduce greenhouse gas emissions and/or enhance carbon sinks

Native Species - A species that has arrived and inhabited an area naturally, without deliberate assistance by man, or would occur had it not been removed through past management

Naturalised Species - A non-native species that reproduces consistently and sustains populations over more than one life cycle without direct intervention by humans

PES - Payments for Ecosystem Services

PES Agreement - Contracts made between the project coordinator and each individual smallholder or community group in relation to a specific *plan vivo*, which function to transact ecosystem services and lay out payment and monitoring responsibilities

plan vivo - A sustainable land-management plan for a specified piece of land, drawn-up by the land-holder (smallholder or community group)

Plan Vivo Certificates - Ecosystem service certificates generated by Plan Vivo projects, independently issued by the Plan Vivo Foundation. Each Plan Vivo Certificate represents the reduction or avoidance of one tonne of carbon dioxide emissions, plus associated livelihood and ecosystem benefits.

Plan Vivo Project - A project the Plan Vivo Foundation has registered following validation that it is successfully implementing and developing the systems it requires to provide quantifiable ecosystem services and promote sustainable livelihoods

Project area - An area of land within which the project activities designed to provide ecosystem services are taking place. The project area can be a single area of land, or it may be the sum total of many small areas of land within a landscape.

Project boundary - Denoted the area within which project technical specifications may be used

Project Coordinator - The organisation that takes overall responsibility for the management

of a Plan Vivo project

PDD (Project Design Document) - The PDD pulls together all information on the project including governance structure and processes

Project period - The length of time the project coordinator commits to supporting and monitoring project activities

Project start date - The date on which activities are implemented on the initial group of *plan vivos* (management plans) in the project

Reforestation - Direct human-induced conversion of non-forested land to forested land, on land that was previously forested but converted to non-forested land

Rehabilitation (of ecosystems) - The process of re-establishing the productivity and some, but not necessarily all, of the plant and animal species originally present in an ecosystem

Restoration (of ecosystems) - The process of re-establishing the structure, productivity and species diversity of the forest originally present

Risk buffer - The reserve of carbon services generated by land-use activities but not eligible to be sold as Plan Vivo Certificates, to protect the project against unexpected losses of carbon stocks

Smallholder - Land-holder that is not structurally dependent on permanent hired labour, and manages their land mainly with their own and their family's labour force

Sustainable Land-Use - The planned use of land, consistent with meeting livelihood requirements, protecting soils, watercourses and biodiversity

Technical Specification - A section of the PDD that describes a specific land-use activity to take place in a Plan Vivo project, including the methodology used to quantify carbon services, assessment of risks, leakage and additionality, the management and monitoring system to be adopted, and description of likely ecosystem services beyond carbon

Validation - The initial evaluation of a project against the Plan Vivo Standard, undertaken by an approved expert-reviewer or accredited auditor

Verification - The evaluation of a project post-registration, against the Plan Vivo Standard, by an approved third-party verifier, to ensure continued compliance with the Standard and delivery or progress towards delivery of ecosystem services

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Improving livelihoods, restoring ecosystems