Carbon Project Primer

Laikipia Conservancies Association

Report submitted to Laikipia Conservancies Associate (LCA) by The Landscapes and Livelihoods Group (TLLG)
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Introduction

The Laikipia Conservancies Association (LCA) consists of 28 member ranches and conservancies. Eight members are Community Conservancies under the 2016 Community Land Act. The freeholder or leasehold for the remaining 20 properties are owned outright by individuals or through Kenya registered trusts or limited companies. The community conservancies have sizable populations living within them and dependent on their natural resources and are less developed in terms of governance, security, income streams, infrastructure and human capacity. As a result, the levels of encroachment by neighbouring pastoralists cattle and invasive species is significantly higher in these areas.

The LCA is exploring the potential to develop a carbon project that encompasses all member ranches and conservancies, but initial activities will focus on three Community Conservancies - Mukogodo, Shulumai, and Nayamat.[1] To begin the process of developing a carbon project concept for these areas, it will be necessary to identify rights holders, and to then obtain Free, Prior and Informed Consent (FPIC) from these rights holders.

To help ensure that those with statutory and/or customary rights to land and resources within the selected Community Conservancies have sufficient understanding of the proposed carbon project; prior to requesting consent to explore the potential for a carbon in the selected Community Conservancies, LCA will carry out a series of stakeholder engagement activities to share and discuss key information relevant to the project. This Carbon Project Primer provides details of information that should be shared with and understood by stakeholders in the potential carbon project before they decide whether to grant consent to explore the potential for a carbon project.

The topics covered include details of:

1. What is a carbon credit?
2. Activities that can generate carbon credits
3. Potential funding sources
4. Roles and responsibilities
5. Potential benefits
6. Risks and alternatives

To ensure that rights-holders and other stakeholders in the proposed carbon project fully understand the concepts in this document, it is expected that LCA will consider how best to present, explain and discuss the topics, for example by producing visual summaries and/or other appropriate means of delivery. The appropriate means of communication will need to be considered for each stakeholder group, and should be developed with input from individuals with a detailed understanding of the social dynamics of the group. For example for describing the themes in Section 1.1, interactive activities can be used to involve stakeholders in defining land degradation, identifying activities that cause degradation, and describing the benefits of land restoration.

[1] Of the 8 LCA community conservancy members, 5 are already part of the Northern Kenya Grassland Carbon Project established by the Northern Rangelands Trust

1 What is a carbon credit?

1.1 Preventing and reversing land degradation

When land is degraded there is a reduction in native vegetation, a reduction in soil health and pasture quality, soil erosion, reduced availability of water, an increase in invasive species, and increases in local temperatures. Activities that contribute to land degradation include:

- Unsustainable timber harvesting and charcoal production,
- Overgrazing,
- Sand harvesting.

If land is degraded and/or degrading, changing the way that land is used or managed can benefit local and global communities.

1.1.1 Local benefits

Preventing land degradation and restoring degraded land can have the following benefits to local communities:

- Improved soil health and pasture quality
- Maintenance and improvement of water supply, and reduced susceptibility to droughts
- Sustainable supply of firewood, timber and non-timber forest products
- Improvement to local climate (fresh air)

1.1.2 Global benefits

Benefits to the global community from preventing and reversing land degradation include:

- Reduced greenhouse gas emissions
- Increased carbon stored in vegetation and soils

Greenhouse gases in the atmosphere trap heat and cause increases in temperature and other changes such disruptions to local rainfall patterns. There are global efforts to reduce the greenhouse gases in the atmosphere.

Carbon is stored in vegetation and soils. When land is degraded carbon from vegetation and soils is converted to carbon dioxide – a greenhouse gas (See Figure 1, red arrows).

Restoration of land increases the carbon stored in vegetation and soils, removing carbon dioxide from the atmosphere (See Figure 1, blue arrows).

Activities that prevent land degradation or regenerate degraded land therefore reduce greenhouse gas emissions and increase the carbon stored in vegetation and soils, reducing the greenhouse gases in the atmosphere. The global community benefits from this reduction in greenhouse gases in the atmosphere because it helps to prevent increases in temperature and other types of climate change.

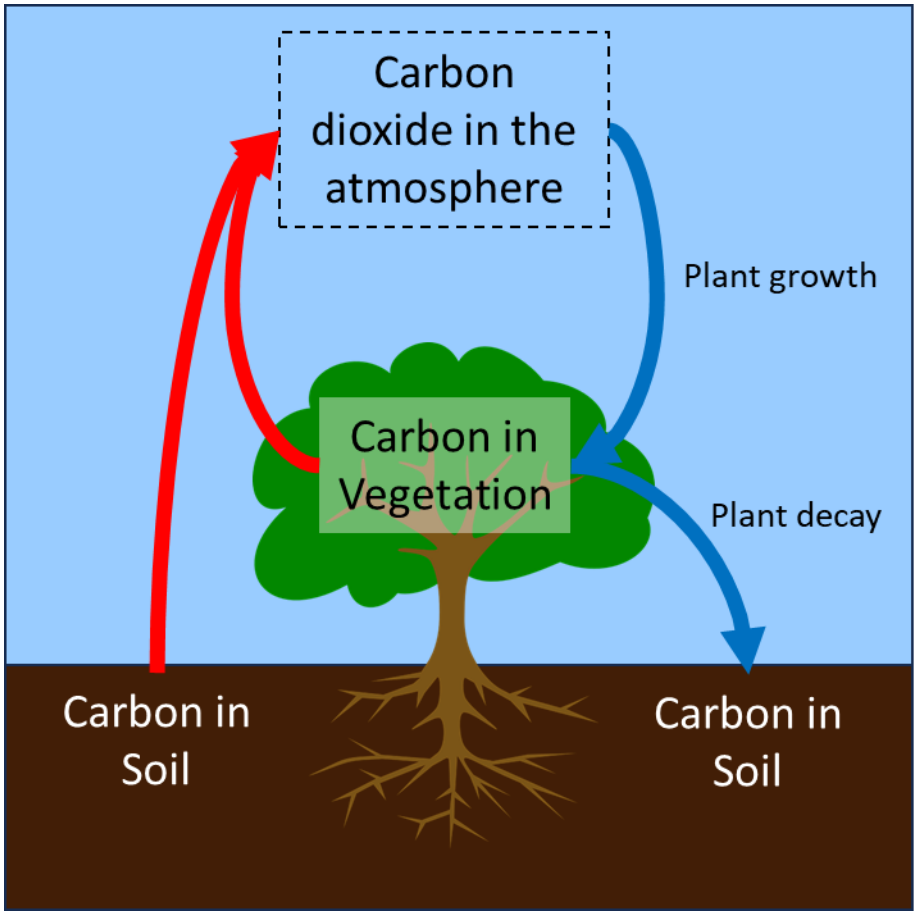

Figure 1 Simple carbon cycle

1.2 Carbon credits as a source of finance

To help with global efforts to reduce the greenhouse gases in the atmosphere, and reduce the impacts of climate change, governments, organisations and individuals are supporting activities that prevent and reverse land degradation.

Each carbon credit represents 1 tonne of carbon dioxide that is prevented from entering the atmosphere (for example by preventing land degradation) or that is removed from the atmosphere (for example by land restoration).

Projects that can demonstrate their performance in avoiding land degradation and/or restoring degraded land may be able to generate carbon credits. These carbon credits can be sold to generate finance to support activities that prevent and reverse land degradation.

2 Activities that can generate carbon credits

2.1 Key concepts

Some key concepts for carbon project development are:

- Without-project conditions,
- Additionality,
- Permanence,
- Leakage,
- Stakeholder engagement, and
- Environmental and social safeguards

These concepts are described below.

2.1.1 Without-project conditions

To generate carbon credits there must be a change in land use or land management that prevents land degradation and/or leads to land restoration. Reductions in greenhouse gas emissions and increases in carbon stocks are measured against the conditions that would be present without the project (called the 'Baseline' or 'Without-Project' scenario).

2.1.2 Additionality

For carbon credits to be generated, there must be factors (or 'barriers') that prevent the land managers from implementing the change in land use or land management, and the carbon project must help to overcome those barriers. Factors that could prevent a change in land use or land management could include a lack of finance, lack of knowledge of alternative practices, or cultural barriers to change. If a project can help overcome these barriers the project benefits are considered 'Additional' to what could be achieved without the project.

2.1.3 Permanence

The change in land use or land management must result in long-term benefits to the rights holders that exceed any benefits that could come from alternative land uses, so the project results in a long-term (or 'Permanent') change.

2.1.4 Leakage

The change in land use or land management should not cause an increase in land degradation outside conservancy, for example by displacing grazing or other activities that cause degradation. Displacement of activities can be reduced by providing alternative sources of income or resources to people whose activities are restricted, to remove the need for them to move their activities elsewhere.

2.1.5 Stakeholder engagement

Carbon projects must developed with the involvement of the people that own or manage the land, and people that could be affected by project activities, who should have the opportunity to contribute to the design of project activities. Project activities can only be carried out with the consent of the

rights holders to the project area, so project development and implementation must also include a process for requesting Free, Prior and Informed Consent from all rights holders. It is the project developer's responsibility to ensure that rights holders have the necessary information to make informed decisions related to the project, including how any finance generated it used. If granted, consent can with withdrawn at any time throughout the project.

2.1.6 Environmental and social safeguards

When developing a carbon project it is important to consider whether project activities could have negative impacts on people or the environment. An Environmental and Social Impact Assessment is therefore carried out to identify risks so that project activities can be adapted or additional activities can be added to remove or minimise the risk of negative impacts.

2.2 Potential project activities

Potential carbon project activities include changes to land management that results in a reduction in land degradation and/or restoration of degraded land. Examples of potential project activities are summarised in Table 1.

If increases in carbon stocks in vegetation and soils or reductions in GHG emissions from degradation that result from these activities can be measured, it may be possible to generate and sell carbon credits.

Table 1 Example project activities for Community Conservancies in Laikipia

Without-Project Conditions	Potential Project Activities	Local Benefit	Global Benefit
Forest converted to bushland or grassland	Forest protected and restored through: i) grazing management; ii) control of timber harvesting and charcoal production; iii) regulations on timber harvesting; iv) tree planting	• Sustainable supply of firewood, timber and non-timber forest products • Maintenance and improvement of water supply • Improvement to local climate (fresh air)	• Reduced GHG emissions • Increased carbon stored in vegetation and soils • Biodiversity benefits
Bushland converted to grassland	Bushland degradation prevented and degraded bushland restored through: i) grazing management; ii) invasive species removal; iii) reseeding degraded grassland; iv) tree planting	• Improved pasture quality • Prevention of soil erosion • Improvement to local climate (fresh air) • Increased resilience to droughts	• Reduced GHG emissions • Increased carbon stored in vegetation and soils • Biodiversity benefits
Grassland degraded by over-grazing, invasive species and sand mining	Grassland degradation prevented and degraded grassland restored through: i) grazing management; ii) prevention/control of sand harvesting; iii) invasive species removal; iv) water bunds and reseeding	• Improved pasture quality • Prevention of soil erosion • Improvement to local climate (fresh air) • Increased resilience to droughts	• Reduced GHG emissions; • Increased carbon stored in soils

3 Potential funding sources

Carbon credits are bought by people and organizations that want to, or are required to make a contribution to reducing greenhouse gases in the atmosphere. Some organisations are required to do this, for example if their activities generate greenhouse gas emissions that they cannot avoid. Other organisations and individuals may choose to this because they are concerned about climate change and/or because they want to support projects that prevent land degradation, restore degraded land, support local communities and help conserve biodiversity.

If a carbon project is developed, LCA will help identify people and organisations that want to buy any carbon credits generated. The price paid for each carbon credit depends on market conditions and what the buyer is willing to pay. Finance generated from the sale of carbon credits therefore depends on the measurable carbon benefits achieved by the project (though increases to carbon stored in vegetation and soils, or prevention of GHG emissions from land degradation), and the price that each carbon credit can be sold for

There is no guarantee that carbon credits can be generated or sold, and there is no fixed price that carbon credits are sold for. The prices paid for carbon credits may increase over time as there is growing demand, but this is not certain and prices could also go down. The price for carbon credits has changed over time and is set to change. Prices currently paid for land-based carbon projects are typically between around $2 and $20 per tonne of carbon dioxide emissions reduced or removed.

4 Roles and responsibilities

Key stakeholders in carbon project development and implementation are:

- Rights-holders
- Other project affected people
- Regional and national authorities
- Project proponents/Project coordinators e.g. LCA
- Standards Setting Bodies e.g. Verra, Plan Vivo
- Independent Auditors i.e. VVBs
- Carbon credit buyers

The roles and responsibilities of these stakeholders in the development and implementation of a carbon project are summarised in Table 2.

4.1 What LCA can offer

<add summary of what LCA is and why it is a good choice for project proponent/developer>

Table 2 Roles and responsibilities in carbon project development and implementation

Project Phase	Rights holders and other project affected people	Project developer (e.g. LCA)	Other stakeholders
Concept Development To determine whether develop a carbon project (~ 6 months)	• Work with LCA to identify land management activities with potential to generate carbon credits. • Decide whether to pursue carbon project development.	• Work with rights holders and other project affected people to determine if there is potential for a carbon project	• Local authorities should be informed of the potential project • A concept note may be submitted to the Standards Setting Body for approval.
Project Design Development of activity plans, monitoring plans, and project governance structures (~ 18 months)	• Work with LCA to develop land management plans and project governance structures • Decide whether to implement the project	• Work with rightsholders and other project affected people to develop land management plans, governance structures and monitoring plans • Draft a project description document	• Local authorities should approve the project design • Project design documents are submitted to the Standards Setting Body for approval • An independent auditor will visit the site to assess the project
Project Implementation Carrying out project activities and monitoring (10 to 100 years)	• Carry out land management plans and monitoring with support of LCA • Receive agreed benefits (if land management plans are successful in reducing land degradation and/or regenerating degraded land)	• Support rights holders and project affected people to carry out project activities and monitoring • Compile monitoring reports • Find buyers for carbon credits generated • Manage project finances according to the agreed benefit sharing arrangements	• Monitoring reports are submitted to the Standards Setting Body for approval • An independent auditor will visit the site to assess project impacts • If the monitoring report is approved, the Standards Setting Body will issue carbon credits to the project

5 Potential benefits

If a carbon project is successful and generates carbon credits that can be sold at a price that is high enough to cover the costs of implementing project activities and monitoring, the following benefits will be achieved:

- Contributions to the global goal of reducing greenhouse gases in the atmosphere
- Improved land management that prevents degradation and/or enables degraded land to regenerate
- Benefits to local communities through increased productivity, improved soil health, increased water quality and quantity, reduced susceptibility to droughts, diversified livelihood activities and improved local climate conditions

If a surplus is generated from carbon credit sales (after paying for the costs of project implementation and monitoring), additional finance can be used to support community development initiatives or to provide cash payments to rights-holders. Details of how any surplus can be used will be described in the project description documents and formalised in a contract between LCA and the rights holders.

6 Risks and alternatives

The benefits of a carbon project are not guaranteed, and there are several risks that should be considered before deciding whether to pursue carbon project development. There may also be alternative approaches that could provide similar or more benefits. Some of the main risks and potential alternatives that should be considered are summarised below.

6.1 Risks

Main risks that could prevent a carbon project from delivering the benefits described in Section 5 are summarised below.

- Lack of viable alternative land management practices - Land management practices that benefit local communities and contribute to preventing land degradation and restoring degraded land may not exist, be too expensive to implement, or not be supported by local communities.
- Changes to land management may benefit some stakeholders but negatively impact others – for example:
    - Changes in land cover – e.g. if pasture is converted to forest
    - Increases in human wildlife conflict
    - Restrictions on access to certain areas or natural resources;
    - Changes in management regimes could introduce additional transaction costs (travel/ time, inputs, etc)
- Alterative land management practices may provide greater benefits to the rights-holders – Even if viable alternative land management practices are identified, and these are supported by the local communities, changes to environmental or socio-economic conditions at the project site may mean that alternative land uses become more attractive during the course of the project. This may lead to an abandonment of project activities and adoption of alternatives that don't contribute to preventing land degradation and restoring degraded land, and that could reverse the benefits achieved.
- Natural disasters or extreme conditions could adversely affect the project area – these could reduce the effectiveness of the project activities or reverse the benefit achieved, which would affect the number of carbon credits generated.
- Markets for carbon credits may fluctuate and or decline – jeopardising the financial viability of carbon project.
- New legal requirements for carbon project could be introduced – potentially affecting the viability of the project.

These main risks and other risks identified through the project development process should continually be assessed and their impacts considered in the design of the project.

6.2 Alternatives

Working with LCA to develop a carbon project may not be the only way to achieve the benefits described in Section 5. Before deciding whether to work with LCA to explore the potential of a carbon project the following alternatives should also be considered:

- Option 1: Explore potential for a carbon project with LCA
- Option 2: Explore potential for a carbon project with a different project proponent e.g. Northern Rangelands Trust, Boomitra
- Option 3: Do not explore the potential for a carbon project - There may be other opportunities to finance improvements to land management, such as philanthropic funding or tourism

These options should be discussed with LCA and other independent advisers before making a decision.