

**GREEN BELT MOVEMENT**  
**PLAN VIVO PILOT PROJECT**  
**KENYA**  
**PROJECT IDEA NOTE**

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## 1. Project objectives and activities

The main objectives of the project are to improve livelihoods and reduce poverty in the Subukia constituency of Kenya, by protecting and restoring the local environment, so as to improve environmental services, including carbon sequestration, promote food security and water harvesting initiatives. This will be achieved using the Plan Vivo payments for ecosystem services model.

### Activities that will generate Plan Vivo Certificates

- Facilitate the community in the target area in establishing and management of agroforestry systems including; boundary planting, interspacing trees with crops and establishing woodlots on private farms.
- Coordinating and supporting the community in maintaining trees they have planted in state owned forest in the last 4 years.
- Coordinating and supporting the community in planting and maintaining trees in the state owned forests.

The above activities will be introduced in stages as the project progresses. The pilot project will first focus on sensitizing the target communities and stakeholders on climate change, its impacts on livelihoods, its mitigation and adaptation strategies, and the Plan Vivo System. The target grassroots community will then be guided in planting trees on farm, maintaining the trees they have planted with the Green Belt Movement in state owned forests and later extend to plant in the gazetted state owned forests and the adjacent public lands. These project activities will raise income for the community through the sale of Plan Vivo Certificates for payment of ecosystem services.

The project will focus on planting indigenous trees and a few naturalized exotics trees that do not have negative ecological impacts on farms, together with other crops without the farmer abandoning other agricultural activities.

These activities relate to the project objectives because they aim to;

- Reduce poverty through increased production of agroforestry products for home consumption and sale.
- Contribute to food security by restoring farm soil fertility for food crops and production of fruits, nuts and edible oils.
- Provide fuel wood.
- Increase diversity of non-farm tree crops and tree cover to buffer farmers against the effects of global climate change.
- Improve nutrition for target communities including those living with HIV/AIDS.
- Increase access to other tree products such as medicinal herbs, and shade.
- Sequester carbon
- Generate an income via the sale of carbon credits through Plan Vivo certificates.

Additional (supporting) activities to be supported by the project are:

- Improvement of food security by promoting growing of indigenous foods, organic farming, kitchen gardens
- Implementation of water-harvesting approaches by cut off drains, run off collection in open drains/dams among others

These additional activities are climate change adaptation strategies that will provide alternative livelihoods to the communities in order to help maintain planted trees and reduce dependence on the forests.

## **2. Target groups/communities**

Target groups for implementation of this project area the rural communities who live adjacent to forests and public spaces in the Subukia constituency.

This project will engage about ten tree nursery groups during the pilot stage. Each of these groups consists of about 15 people of mixed gender and ages with each person representing a household. More groups will be engaged as the project progresses.

The communities are organized in small community tree planting groups that carry out its affairs in a democratic process. These groups have already embraced the culture of tree planting and have been planting trees with GBM for the past four years. The groups are registered with GBM and also with the Ministry of Culture and Social Services making them legal entities. They have the support of the local administration for example the chiefs and heads of government representatives and other stakeholders who they work in collaboration with in their tree planting activities observing rules and regulations provided for by the law. They are also members of the local Community Forest Association.

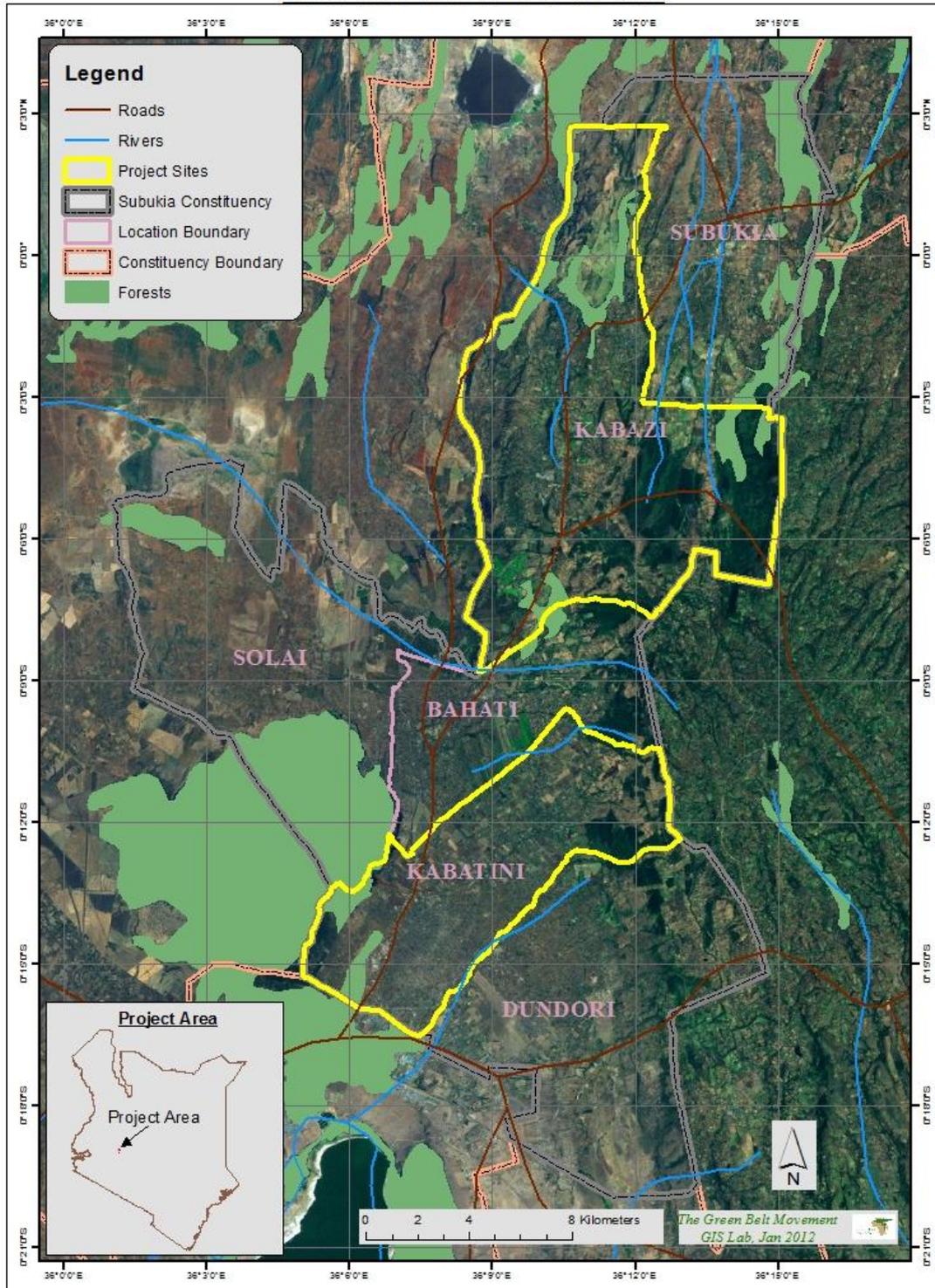
## **3. Description of proposed project area**

The proposed project area is Subukia constituency which is located in the Rift Valley Province of Kenya. The constituency covers an area of 551.7 KM<sup>2</sup> and is located between longitudes 350 28ø and 350 36ø and latitude 00 13ø and 10 10ø south.

### **Administrative and political units**

Subukia constituency is administratively known as Nakuru North District, divided into two divisions: Bahati and Kabazi, and these divisions further subdivided into locations and further into sub-locations. The pilot project will start in Kabatini Location in Bahati Division and Kabazi Location in Kabazi division. More locations will be engaged in the project as the project progresses.

### PLAN VIVO PILOT PROJECT MAP



## Population

Table 2: Summary of population distribution in Subukia constituency

Description	Statistics
Male population	103,316
Female population	108,375
Total population	211,691
Households	51,224

Source: Kenya bureau of statistics, 2010

## Topographic features

The main topographic feature in the district is the Menengai crater with its drainage and relief system. The crater is a great tourist attraction and a basis for geological and volcanic studies; it is also a source of geothermal energy. The major river in the constituency is Turasha stream which flows from Bahati forest. The river drains into Lake Solai Basin and is a major source of water in the constituency. The topography found in the area has greatly influenced the economic activities. In areas with fertile volcanic soils, agriculture and dairy farming are practiced. In the drier parts, livestock keeping is practiced in addition to other activities linked to tourism.

## Biodiversity

### Common Tree species

Common indigenous tree species in the project area are: *Prunus Africana*, *cordial abyssinica*, *croton macrostachyus*, *olea Africana*, *Ekebergia rueppelliana*, *croton megalocarpus juniperus procera* and *Podocarpus falcatus*. The naturalized exotic species are; *Gravillea robusta*, and *Mangifera indica*, guava and avocado fruit species.

### Common Animals

A variety of animals are found in Donduri and Bahati forests in Nakuru north district; they include African hare, kirks Dik Dik, impala, Thompsons Gazelle, common Zebra, spotted hyena, spring Hare, Bush squirrel, porcupine, warthog, black faced vervet monkey, Impala, and honey Badger.

## Deforestation

Forests throughout Kenya have been degraded; only 1.7% of the original closed canopy forest land is remaining. This is largely due to the past forest management approach that lacked cooperation between the community and the government, leading to destruction of Bahati and Donduri forests. 92% of the gazetted forest in Kenya is under threat from illegal logging, fire outbreaks and illegal charcoal burning. These activities are associated with the need for pursuit of alternative livelihoods for the rural communities.

## Climate information

The climate of Subukia constituency is strongly influenced by the altitude and physical features. There are three broad climate zones, with temperature varying between 12<sup>0</sup>C and 24<sup>0</sup>C. The highest altitude is 2500 metres and the lowest altitude is 1700 metres above sea level. The area receives annual rainfall of between 760 ó 1800 mm, depending on the zone. The natural resources found in the area include forests, rivers, tourist scenarios, good soils for farming and common minerals that offer considerable bedrock to the construction industry both within and outside the constituency

There are four forests in the constituency: Donduri and Bahati forests are gazetted while Menengai and Subukia forests are not gazetted. The total area of gazetted forest is 14,300 Ha, while the ungazetted forests have a total area of 8,000 Ha. The main forest products are timber and fuel wood.

Carbon baseline surveys have not been carried out in these forests to identify the current status of carbon stocks or emissions. These surveys will be done upon the inception of the project.

### Land Use

Agriculture is the most important sector in the constituency with 75% of the total population relying on it both directly and indirectly for their livelihood. Agriculture also constitutes 75% of average household income. The constituency has 42,022 ha. of agricultural land, 34,640 ha are under cultivation and 1,700 ha are under irrigation. The main food crops grown are maize, beans, Irish potatoes and sweet potatoes. Horticulture crops, coffee, tea and pyrethrum are the main cash crops but grown in few areas. Dairy farming under a zero grazing system is emerging as an important economic activity. The livestock farmers in the constituency are keeping dairy cattle, beef cattle, goats, sheep and poultry. (Nakuru North district development plan for 2008-2012, 2009)

### Settlement patterns

The population of the constituency is multi-ethnic and settlement patterns are largely influenced by the availability of arable land. Most of the people in the constituency have settled on land that was previously under settlement schemes. Proximity to the major roads and other infrastructure is another important factor determining settlement in the district. The influence of urbanization has also affected the settlement pattern.

Table 3: Summary of socioeconomic conditions

Information category	Specific information	Statistics
Health	No of health centers	8
	Doctor/ Population ratio	1:23,452
Poverty Indicators	Absolute poverty	
	Percentage Number	49 88,180
Contribution to national poverty	In percentage	2.5
Urban poor	Percentage	67
	Number	6,807
Rural poor	Percentage	32
	Number	79,742
Food poverty	Percentage	36
Education	Primary schools enrolment	86%
	Secondary schools enrolment	80%
	Teacher/ pupil ratio	1:36
Constituency literacy level	Literacy rate (%)	
	Male	69.5
	Female	67.4

	Total	68.4
Cooking fuel	Firewood	52.7%
	Paraffin	14.3%
	Charcoal	13.2%
	Others	19.8%
Lighting fuel	Paraffin	73.3%
	Electricity	24.8%
	Firewood	0.1%
	candles	0.9%
Household	Total households	
	Average size	4.5 persons
Contribution to household income	Agriculture	75%
	Rural self employment	10%
	Wage employment	5%
	Urban self employment	10%
Land size	Average small scale	2.5 acres
	Average large scale	1,100 acres
	Percentage of people with title deeds	60%

Source: Nakuru North district development plan of 2008 ó 2012, (2009)

#### **4. Ownership of carbon rights and land-tenure**

The land tenure system in this area is freehold private land. The average size of land in the constituency is 1.01 ha. The majority of people (60%) have title deeds for their land which entitles them to long term ownership to the land and rights to carbon credits. The evidence will be documents like the title deed or the purchase agreement. In addition the local leaders either the chief or assistant chief who are in charge of that area will approve that the land is owned by the applicant. Thus when we focus on planting trees in private farms, the land owners will have carbon ownership rights.

As appertains planting in the forests, the two forests Bahati and Donduri forests are gazetted as government reserve forests. However, under the provision of the forest Act of 2005, community forest associations are encouraged to develop management plans and thus participate fully in the management of the forests. The community forest associations in the two forests have developed management plans and management agreements signed with the Kenya Forest Service ó who are the custodian of the state forests. Thus our target community who are all members of the community forest associations enjoys community user rights of the forest.

## **5. Description of applicant organisation(s) and proposed governance structure**

The Green Belt Movement (GBM), is a non-governmental organization (NGO) in Kenya and having its office at Adams Arcade, Kilimani Lane off Elgeyo Marakwet Rd, P.O BOX 67545-00200, Nairobi, Kenya.

GBM is a community-based, development and environmental organization focused on community mobilization and empowerment to protect and restore the environment. Its vision is to create a society of principled grassroots people who consciously work for the continued improvement of their livelihoods.

GBM was founded by Prof. Wangari Maathai in 1977, under the auspices of the National Council of Women of Kenya, as a community mobilization and empowerment grassroots movement comprised and led mainly by women. The Movement promotes a holistic approach to development, by empowering people and building their capacity to restore conserve and protect the environment, promote good governance and develop sustainable livelihoods.

Through its process of mobilizing people to take action, GBM addresses a wide range of issues that directly affect the lives of individuals, particularly women, their families and their communities. Such issues include: education, health and HIV/AIDS. The resulting empowerment through GBM programmes is the foundation and a powerful catalyst for promoting community action, good governance and cultures of peace.

To date, GBM has facilitated the formation of over 4,000 tree nursery groups across Kenya. These groups have planted over 45m trees for the past 3 decades. The structure at the grassroots is backed by a team comprised of 10 Project officers, 40 extension officers, 600 Green Volunteers and Green Rangers. It is supported by a core group of project managers, administrators and the executive board which oversees all the activities of the GBM.

The vision of the organization is to create a value driven society of people who consciously work for continued improved livelihood securities and a greener, cleaner county. Its mission is to mobilize community consciousness for self-determination, equity, improved livelihood securities and environmental conservation.

GBM will take the role of project coordination and administration in this project. GBM will be responsible for reporting project activities, ecosystem and socioeconomic benefits, and compliance with the Plan Vivo Standard to the Plan Vivo Foundation. Its responsibilities will be as shown in the table below

<b>Responsibilities for functional areas</b>	
1	<p><b>Overall management &amp; coordination</b></p> <ul style="list-style-type: none"> <li>• Oversee &amp; provide guidance on the implementation of all project work streams, particularly technical development, community engagement, administration &amp; financial management</li> <li>• Lead planning &amp; organization of tasks &amp; activities &amp; manage project staff</li> <li>• Oversee project finances &amp; management of resources</li> <li>• Work to ensure &amp; support sales of Plan Vivo Certificates</li> <li>• Negotiate &amp; agree PES purchase agreements with buyers</li> <li>• Coordinate participation to ensure PES commitments can be met</li> <li>• Oversee agreement of PES contracts with participants</li> <li>• Oversee project equipment &amp; materials</li> <li>• Arrange validation &amp; verification</li> <li>• Coordinate extension of project activities &amp; opening of new project sites</li> <li>• Coordinate external reviews</li> <li>• Provide regular project communication &amp; updates</li> </ul>
2	<p><b>Financial &amp; administrative management</b></p> <ul style="list-style-type: none"> <li>• Oversee &amp; provide guidance on administration &amp; financial management</li> <li>• Agree project budgets &amp; deliver project work streams to budget &amp; on time</li> </ul>
3	<p><b>Political, institutional, stakeholder engagement</b></p> <ul style="list-style-type: none"> <li>• Link with international, regional, national &amp; local organisations, stakeholders &amp; partners</li> <li>• Liaise with relevant statutory bodies</li> <li>• Communicate with all relevant parties</li> </ul>
4	<p><b>Community &amp; social engagement</b></p> <ul style="list-style-type: none"> <li>• Monitor progress with activities at each of the VDC pilot sites</li> <li>• Help coordinate the efficient creation or pooling &amp; sharing of community outreach materials, tools &amp; resources across the sites</li> <li>• Provide guidance &amp; assistance with community sensitization &amp; trouble-shooting if required</li> </ul>
5	<p><b>Technical functions (including monitoring)</b></p> <ul style="list-style-type: none"> <li>• Oversee &amp; assist with all technical aspects of programme design &amp; development</li> <li>• Provide technical support &amp; assistance to project staff &amp; participants, including guidance on the introduction &amp; implementation of project interventions</li> <li>• Oversee all mapping &amp; GIS work</li> <li>• Coordinate biomass surveys</li> <li>• Develop baselines &amp; with-project scenarios</li> <li>• Carry out or oversee &amp; approve carbon modeling</li> <li>• Determine carbon benefits of project interventions</li> <li>• Develop &amp; update technical specifications, including management plans &amp; monitoring systems</li> <li>• Work with project staff &amp; participants to develop &amp; improve management plans &amp; monitoring systems</li> <li>• Oversee technical monitoring &amp; reporting &amp; the management of payment data</li> <li>• Coordinate monitoring of progress towards generation of ecosystem services</li> </ul>

The project will engage the community groups that are currently involved in tree planting activities with GBM and mobilise other groups to organize themselves into the GBM working model so as to engage them in the project.

For this project, a senior project officer (SPO) will be responsible for the overall project management. The SPO will work with a team comprising of one project officer, one extension officer and a number of Green Rangers. The Project will be organized such that The GBM Extension Staff will be working directly with the registered community groups. One person per group will be trained on the plan vivo system and the goal of the project so that he/she can assist the extension officer in creating awareness as well as overseeing tree nursery management, supply of seedling and monitoring of the project activities.

GBM will also receive technical guidance/support from Bioclimate Research and Development Ltd so as to ensure that all the technical needs of the Plan Vivo Standard are met.

## **6. Community Led Design.**

Complete community participation and involvement in the project is required in order for the project to be sustainable, therefore facilitation of a participatory planning, monitoring and evaluation system at group level will be a key element for strengthening organizational capacities. At the earliest stage of this project the community groups were trained on Climate change issues and later involved in consultation meetings related to the establishment and design of the project. These consultations were aimed at identifying and defining sustainable land-use activities that served the community's needs and priorities.

The stakeholders in the project area were also informed about the project and involved in a consultative forum. They are in support of the project.

Participating households form groups that comprise of about 15 members. To start with, the project will work with ten community groups then more will be engaged as the project progresses. Each group is treated as the smallest working unit. Each group is a legal entity registered with the Ministry of Social Services and also registered with the GBM and has a tree nursery. The group is trained on group management and it conducts its affairs in a democratic manner.

Two group representatives will be selected to be team leaders. They will be trained on project implementation and in monitoring of the project activities. The team leaders will work closely with the GBM field officers to facilitate coordination and communication to group members.

Appropriate training and extension guides for the team leaders will be developed and made available to the team leaders. The facilitation of a participatory planning, monitoring and evaluation system at group level will be a key element for strengthening organizational capacities.

## 7. Additionality Analysis Provided

This project is not a product of a legislative decree and does not make any economic sense on its own. It only makes sense due to startup funding from Waterloo Foundation and the payment of environmental services (PES) from the sale of Plan Vivo Certificates. The participating groups require financial, technical and institutional support for activities. Unfortunately, the commercial Banks in Kenya feel this is not a viable investment to invest in or lend to the communities to start such activities. For these reasons, these activities can only be possible with the support from Plan Vivo Certificates.

There is a legal structure now available in Kenya for community based natural resources management, although it is in weak forest policy environment and lack of appreciation of the total economic value of forests has led to low levels of government investment in forest conservation and little support for community managed forests.

Table 1 summarizes the additionality and barriers to implementation. The Additionality analysis explains why tree planting has not started in this area in the absence of support for activities.

**Table 1: Additionality analysis**

<b>Implementation barriers</b>		
Financial	No money to develop project. No system currently in place for financing ecosystem service payments	Funding secured to cover start up and project development costs
Technical	Project coordination team requires capacity building to implement and manage project. Communities without awareness and skills to initiate project activities and management processes	Training of project staff with emphasis on the transfer of coordination, administration, technical, financial and data management skills. Develop and implement of project activities
Institutional	Organisational, cultural, social barriers	Facilitation and training to guide and strengthen community groups and structures to organise and implement project activities. Awareness to alter current land and ecosystem management practices

## 8. Compliance with regulations and notification of relevant bodies

For activities on private lands, the new Kenyan constitution supports tree planting and thus the only requirement for the participant is to provide documents proving the ownership of the land like the title deed or the purchase agreement. The National Environment Management Authority (NEMA) requires that an Environmental Impact Assessment be done and a letter of project approval issued.

NEMA and the Kenya Forest Service (KFS) established by the Forest Act 2005 will be engaged and consultations will be carried out before project inception. KFS, NEMA, Ministries of Agriculture and that of Environment and Mineral resources have been notified about the project. In addition the local leaders either the chief or assistant chief who are in charge of that area will approve that the land is owned by the applicant. Thus when we focus in planting trees in private farms, the land owners will have carbon ownership rights.

The Forest Act number 7, 2005 makes it mandatory for local communities to form community forest association (CFAs). In Bahati and Donduri forests which are our target forest two CFAs have been formed and management agreement signed indicating the collaboration between the CFAs and the Kenya forest service and how they would share benefits.

## **9 Sources of start-up funding identified**

Start ó Up funding has been identified. Waterloo foundation has already funded start-up and initial project development.