

Climate change mitigation value and potential

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Executive Summary

Our NGO is currently looking for \$910,000.00 funding to assist the people along the largest manmade Volta Lake in Ghana to improve upon their Soil fertility problems with Biochar Technology. The degradation of the area is due to the result of the worldwide climate change and construction of the Hydro Electric dam. The Lake has a surface area of 8,480 km² and 5,200 km of shoreline. Prior to the construction of the Ghana Akosombo Hydro Electric Dam in the 1960's agricultural activity was at the height of its peak but the after effects of the dam and worldwide climate change etc on the micro environment has resulted in the lost of vast arable land and displacement of people. The environment of the Upper Manya Krobo District (UMKD) of Eastern Region of Ghana which have population of 89,646 people and covers a total land area of 885 square kilometers used to be the evergreen rain forest type until the construction of the Akosombo Dam and climate change effect have change the soil acidity level of major part of the district and these have affected most trees, shrubs and low ground cover plants. The district has large deposit of seasoned refused dumps for a compost manure and dead woods for charcoal production which we are currently using as an experiment in cultivation of pepper (vegetable) without the use of chemical fertilizer, and it looks promising and the pepper leaves looks healthier, though we are yet to document the yield when the time is due for harvesting.

Project Description

NRO pilot Biochar projects are located in UMKD notable at Akotoe, Anyaboni-Bisa, Akateng, Asesewa environs. NRO believe introduction of Organic farming with incorporation of BIOCHAR (TERRA PRETA) system will solve problems associated with the dam construction, climate change and chemical fertilizers. This compelled NRO to send proposal to the district authority for funding to support the NGO to advocate the Biochar

technology, but lack of funds on the part of the district Administration makes it impossible to receive any help from them. And we believe our presence in these IBI 2010 conference would help us source for funds to build the capacity of our staff and district Agric Extension Officers who would intend educate and impact the Biochar technology to the rural farmers in our part of the world. This promising technology would enhance crop production particularly vegetables, mango production and agro forestry practices in general. This intervention would eventually protect the ecosystem.

Goals and Objectives

Our plan of action is to go into serious Biochar Out-grower scheme in the selected sub district within the Upper Manya Krobo District (UMKD) and make it a showcase in West Africa for others to learn from. These would go a long way to prevent the use of chemical fertilizers and promote all year round organic farming to improve farmers crop yield to increase income of farmers and reduce poverty. These would stop rampant destruction of the vegetation to earn a living by the rural folks. The project intends to embark on all year round farming through the use of sustainable irrigation systems to reduce the farmers unemployment during the dry season, which have been identified as the major period when environmental degradation particularly charcoal burning for fuel occurs.

Procedures and Methods

The organization is critically soliciting for funds for capacity building using Farmer School Approach, Workshops, Demonstrations, Fora and Advertisement to encourage farmers to cultivation vast Organic Vegetables which would be intercrop with mangoes etc as agro forestry with Biochar system, Stakeholders will include, the UMKD Assembly (the local Authority), Ministry of Food and Agriculture (MoFA), etc.

Budget

Our Budget is to raise the necessary funds and machineries to service about 640 acres of lands at Akotoe, Anyaboni-Bisa, Akateng, Asesewa environs, to introduce Biochar technology to the larger farming communities in the district through the out-grower scheme. The total cost of the first phase of the project would demand an amount of \$910,000.00. And it would involve over 300 peasant farmer in our area of operations in Ghana.

Monitoring and Evaluation System

The Nubians Renewal Organization field staff and the District Directorate of Agriculture Extension Officers would be use to supervise farmers and submit monthly reports to donors and NRO office on time.

Timelines of the Project

Schedule for this project which would be in three phases of five years each would takes 15 years as total project duration. So, the first phase would end in 2015.

Sustainability Plan

In Ghana the farmers enjoyed theoretical education from the Ministry of Food and Agriculture (MoFA) staff called Agric Extension Officers (AEO), due to these opportunities NRO intends working hand in hand with the Agric Extension Officer in our operation area to build their capacity so that they can continue the process when the project phases ends.