

PROJECT IDEA NOTE

Improving Rural Livelihoods Through Climate Change Mitigation by Adopting Agro-Forestry Practices in Andhra Pradesh, India

**Submitted to Plan Vivo
20-Dec-2011**



Socio-eCO2nomix-Global



VEDA

Climate Change Solutions Ltd

PROJECT IDEA NOTE

Key Information

1. Project Title	Improving Rural Livelihoods through Climate Change Mitigation by Adopting Agro-Forestry Practices in Andhra Pradesh, India
2. Project Location	3 Districts in Andhra Pradesh (Srikakulam, Vizianagaram, and Visakhapatnam)
3. Project Developer, Coordinator & Contact Details	Socio-eCO2nomix-Global Contact Person: Mr. C.A. Rao 1-2-35-15/2; Perraju Pet, Kakinada, India Email: socioeconomix@gmail.com Website: http://socioeconomix.org/
4. Summary of Proposed Activities	Mobilise resource poor farmers to undertake agro-forestry activities on underutilized / unutilized privately owned lands.
5. Summary of Proposed Target Groups	2160 farmer households are the primary target group of this project
6. Acronyms and Definitions	PES: Payment for Environmental Services NTFP: Non Timber Forest Products PRA: Participatory Rural Appraisal GHG: Green House Gases NGO: Non-Governmental Organisation CBO: Community Based Organisation FACT: Farmer's Association for Carbon Trading MoEF: Ministry of Environment & Forests CDM: Clean Development Mechanism

Plan Vivo Project Idea Note

1. Primary objectives of the project

- Improve environmental and socio-economic conditions of resource poor communities living in the Eastern Ghats region of Srikakulam, Vizianagaram, and Vishakapatnam districts in Andhra Pradesh, India.
- Establishment of commercial forests through the afforestation/reforestation of degraded areas.
- Sequester quantifiable volumes of CO₂ from the atmosphere and sell these environmental services in the voluntary carbon market.

1.1. Proposed Project Activity

- Mobilize and facilitate resource poor farmers to raise tree plantations on degraded farm lands and farm bunds. Encourage them to plant species like Teak, Mango, and Cashew. Communities have clearly expressed a wish to plant such species due to their commercial value and sustainability in arid conditions.
- Payments for ecosystem services through the creation of necessary institutional mechanisms to enable the sharing of carbon revenue with the farmers has been formalised with an agreement where a minimum of 60% of the revenue will be shared with the participating farmers. This shall ensure the meeting of the stated objective of improving the socio-economic conditions of resource poor communities living in the project area.
- The project will establish woodlots/plantations through the provision of free seedlings/sapling from ongoing government antipoverty programmes¹; and training in silvicultural techniques in order to generate a sustainable supply of wood and timber and thus remove the pressure on natural forests. The small farmers do not have access to finance from banks and NBFCs (Non-Banking Finance Corporations), the microfinance sector has encountered problems in recent times and is on the verge of collapse. The farmers in this situation are being encouraged to take advantage of the free distribution of seedlings under the ongoing government antipoverty programmes and the prospect of regular additional revenue from carbon credits encourage the farmers to take proper care of the plantations till their maturity. The project also enables the farmers to generate renewable income through the NTFP (Non Timber Forest Products) development.
- Generate carbon credits and identify buyers for the Plan Vivo Certificates generated through the project. The commercialization of carbon credits will place a greater economic value on plantations (apart from timber and fruits or yield every year) and in turn, increase incentive and interest for communities to engage in the project activity.

¹ Farmers are being encouraged to take advantage of this government programme. The hope is that additional finance from the sale of ecosystem services will incentivise farmers to take care and maintain the plantations properly. The average annual plantation rate in India under the Twenty Points Programme for Afforestation (implemented by the Government of India) is around 1.5 million hectares per hectare. Despite the impressive national plantation area, survival rates, growth rates and yields have often been poor due to inadequate site selection and site-species matching, poor planting stock, and a lack of maintenance and protection (ITTO, 2006).

- Through the establishment of plantations with sustainable management plans, Communities restore underutilized/unutilized lands while securing a source of future income through future timber harvests apart from the carbon revenue. In addition, technical training on plantation establishment and management will be given to the communities. This will ensure the long-term involvement of the communities, for the proper management of the timber & fruit bearing trees and to provide a sustainable income source in the long run.

2. Identification of Target communities / groups

The project area includes small landholders spread over the districts of Srikakulam, Vizianagaram, and Vishakapatnam in Andhra Pradesh, India. These districts have a pre-dominance of indigenous population, notified as Scheduled Tribes and Scheduled Castes in India, with the majority of them being poor

Farming communities are involved in the project; however, special emphasis is placed on resource-poor farmers, and farmers having limited land holding (average land holding size in the project area is 0.6ha); who raise plantations of tree species for livelihoods and poverty alleviation with the added element of environmental services (carbon sequestration). The socio-economic benefits of the project would include the following:

- Improvement in the quality of life of the vulnerable sections of society i.e. resource-poor farmers in the most backward regions of the country by helping them to bring their uncultivated degraded lands to productive use by fostering partnerships among farmers, industry, financial institutions and non-governmental organizations. The additional revenue in the form of payment for environmental services enables the farmers to take care of the plantations and enables the establishment of the carbon sinks in the degraded lands.
- The project activity will lead to higher fodder growth within the project boundary compared to the baseline scenario. In the absence of project activity, growth of fodder occurs only during rainy season. Due to the project activity, there will be greater availability of fodder for stall feeding.
- The project will create substantial employment opportunities to the local people in the plantation activities such as nursery operations, planting and post planting, protection etc. besides long term job positions. Most of the job positions are expected to be taken up by the local farmers / communities involved in the project.
- The project will empower the stakeholders to undertake improved commercial operations based on principles of sustainable development and help in building their negotiation skills.

3. Description of proposed project area

The project activity shall be carried out on an estimated land covering approximately 3600 acres of land in Srikakulam, Vizianagaram, and Vishakapatnam districts, in Andhra Pradesh, India. The three districts of Andhra Pradesh have a diverse mix of communities with 33 indigenous communities living in the three districts. The major tribes in the project are comprising of Chenchu, Andh, Gadabas and Gond. The lush plains abruptly end with the commencement of the hill ranges of the Eastern Ghats running from Mandasa in the North-east through Pathapatnam, Palakonda and Parvathipuram to Salur in the South-West.

Figure 1: Srikakulam District

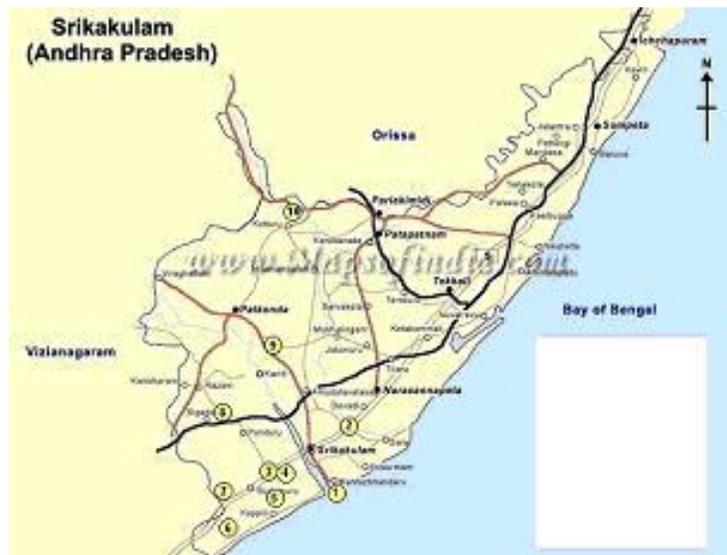


Figure 2: Vizianagaram District

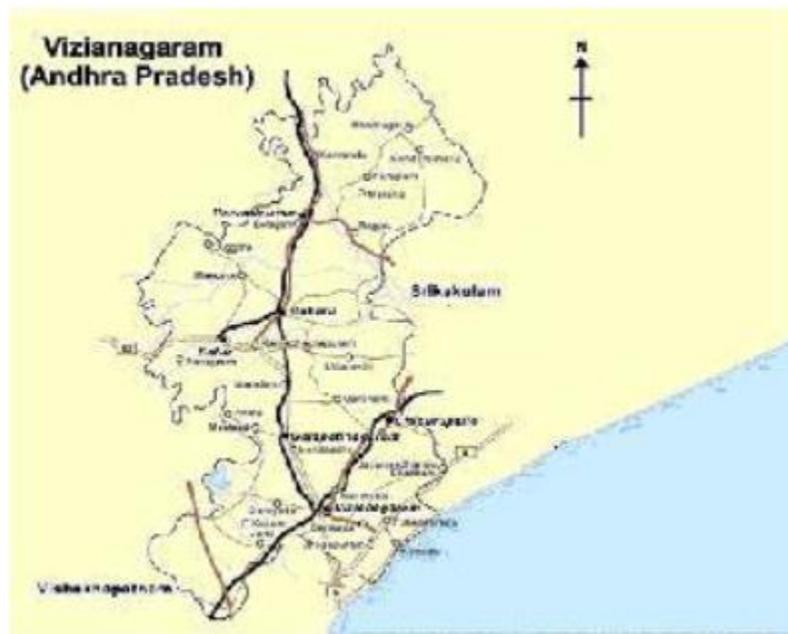


Figure 3: Vishakapatnam District



The 3600 acres of area proposed for the project is rainfed, fallow and in some areas scrub jungles within the administrative boundaries of the three districts of Srikakulam, Vizianagaram and Vishakhapatnam in the State of Andhra Pradesh in India.

The lands are either not put to any use at present or being intermittently used for rainfed agriculture for cultivation of minor millets, cereals and pulses because of technological and financial barriers.

The project is to be taken up only on private lands with clear legal title and any land that is reserved forest, protected forest or wildlife sanctuary or any other forest land is not part of the project activities.

The major soil types in the proposed project area consist of sandy loams and sandy soils in Andhra Pradesh. The soils represented are slightly acidic to moderately alkaline.

Socio-economic Indicators

Agriculture is the main source of income for local communities living in the project area. However, due to different factors like soil erosion, drought, etc., agriculture production is suffering in the project area. The target farmers are largely subsistence farmers who practice rainfed agricultural activities. Most of the farmers have small land holdings. Participatory Rural Appraisal (PRA) has indicated that the majority of the farmers are classified as 'poor'. A copy of this appraisal can be viewed upon request.

Figure 4: Participatory Rural Appraisal



Climate

The four major seasons observed in the project area include: monsoon (June-September), post-monsoon (October-November), winter (December to February) and summer (March-May). The climate is wet during monsoon, moderate during winter and dry during summer. The minimum and maximum temperature of the project area is 15°C and 40°C, respectively. The annual rainfall ranges from 300 to 1400 mm. The predominant wind direction is southeast to west. The relative humidity ranges from 30% to 80%.

District land utilization particulars in ha (percent in parenthesis)

Land use category	Andhra Pradesh		
	Srikakulam (in ha)	Vizianagaram	Visakhapatnam
Geographical area	584,290	630,080	1,134,284
Forest area	70840 (12.1)	111969 (17.8)	477791 (42.1)
Barren land	50410 (8.6)	77753 (12.3)	130938 (11.5)
Land in non-agricultural use	90095 (15.4)	77013 (12.2)	101048 (8.9)
Permanent pastures	930 (0.2)	4899 (0.8)	2968 (0.3)
Miscellaneous tree crops & groves	2619 (0.5)	7668 (1.2)	34779 (3.1)
Cultivable waste	470 (0.1)	3680 (0.6)	8898 (0.7)
Other fallows	4271 (0.7)	10224 (1.6)	11722 (1.0)
Current fallows	56845 (9.7)	14706 (2.3)	54977 (4.8)
Net area sown	307357 (52.6)	322057 (51.1)	311163 (27.4)

4. Baseline Carbon

The lands to be planted in the proposed project activity are severely degraded and comprise low-productivity lands that are under subsistence agriculture.

Baseline information was collected using both primary data and secondary data sources. The primary data was collected as part of the PRA (Participatory Rural Appraisal) exercise in which information relating to pre-existing vegetation, land use, local ecology and socio-economic conditions in the project area were studied. Field studies were conducted using sample survey methods and the existence and non-existence of woody biomass was first assessed through PRA. The baseline surveys have indicated that woody vegetation on land parcels is either lacking or is insignificant as lands have been in subsistence agriculture for a long time. As the lands were under subsistence agriculture there were no bushes or shrub vegetation in the land parcels. Hence, it can be considered that the baseline carbon stock is zero and will not change under the baseline scenario.

4.1. Ownership of Carbon rights – Land tenure

The land used for implementing the project activity is legally owned by local people and is private property. These lands are under the control of the project participants at the starting date of the project activity and are expected to remain under the control of the project participants during the project period. The participating farmers are the absolute owners of the lands and they have the right to change ownership due to unexpected contingencies which cannot be foreseen at this time. Hence, the expectation is that under normal conditions the project land parcels shall continue to remain under the project. However, in the case of exigencies the farmer may choose to change the ownership, in that case the farmer is obliged to inform the project coordinator to inform the same.

The land use prior to project activity is of subsistence agriculture. The farmers own wood and non-wood products produced on the land and therefore, the farmers have legal right to harvest and sell the NTFP and other products that are generated from the land use.

The wood and products that are generated from the plantation activity would be utilized by the farmers for generating revenues to sustain the livelihoods. The products are marketed by the farmers in the local markets at regular intervals or during harvesting season.

The project entity proposes to transfer a minimum of 60% of carbon revenue to the beneficiary farmers in order to not only ensure maximum participation but also to ensure that the interest of the participating farmers is retained in the project. This would have a dual advantage of ensuring permanence and also incrementally improving the livelihood of the participating farmers.

5. Description of organization and proposed governance structure

Project Sponsor and developer: The project is being sponsored and developed by Socio-eCO2nomix-Global(www.socioeconomix.org) which is an enviro-social enterprise promoted by VEDA Climate change solutions Ltd (VCCSL) to provide social, economic and environmental benefits both locally and globally on a sustained basis through integration of business, development and environment.

Legal status: Socio-eCO₂nomix-Global is a not for profit company established under Section 25 of the Indian Companies Act, 1956.

Project partners:

VEDA MACS: Vanitha Empowerment, Development and Advancement Mutually Aided Cooperative Society (VEDA MACS) is a society registered under the Andhra Pradesh Mutually Aided Cooperative Societies Act. It works with farmers to build their capacity to undertake projects and programs that would improve their livelihoods.

VCCSL: VEDA Climate Change Solutions (VCCSL) (www.vccslindia.org) is a Knowledge Processing Organisation established to design, develop and implement projects that are capable of generating carbon revenues to improve livelihoods of rural communities would provide the necessary technical assistance to the project. It provides technical assistance to the project through baseline setting, development of Project Design Document, monitoring, verification etc

History, achievements and current activities:

In the year 2003, VEDA MACS has conceptualized the project “Improving Rural Livelihoods through Carbon Sequestration by adopting environment friendly technology based agroforestry practices” in collaboration with JK Paper Ltd which has been identified by BioCarbon Fund of the Carbon Finance Business of the World Bank for purchase of carbon credits. The project has subsequently been transferred to VCCSL for implementation.

VCCSL is now implementing one of the few AR CDM projects registered (Project No. 4531) with the UNFCCC to connect the poor with the international carbon markets. It is one of the 22 pioneering projects selected by the Bio-CF for purchase of CERs from around the world. It is demonstrating best agro forestry practices with carbon credits for replication both within and outside India and would provide economic, social and environmental benefits both locally and globally.

This project ‘Improving Rural Livelihoods Through Carbon Sequestration By Adopting Environment Friendly Technology based Agro forestry Practices’ covers six districts over two states in India, namely Koraput, Kalahandi and Rayagada districts of Orissa and Visakhapatnam, Vizianagaram and Srikakulam districts of Andhra Pradesh in India. The participating farmers are likely to receive carbon revenue for the first time later this year.

The project mobilizes and encourages small and marginal farmers to raise plantations of tree species with high rates of carbon sequestration in their farmlands. It focuses on women but not be limited to women. It links, facilitates and coordinates with international organizations, carbon financing companies, financial institutions, Government and nongovernmental organizations, plantation material suppliers, agronomists, micro-irrigation experts, end users of the wood products (paper and construction industry etc.) to optimize the overall returns to the small and marginal farmers besides supervising and monitoring to ensure the compliance of commitments made to the principal institutions like Banks, Carbon Fund implementers and participant institutions. The project is expected to sequester 260,550 t CO₂e by 2012 and in the range of 276,000-646,200 t CO₂e.

Project Coordination

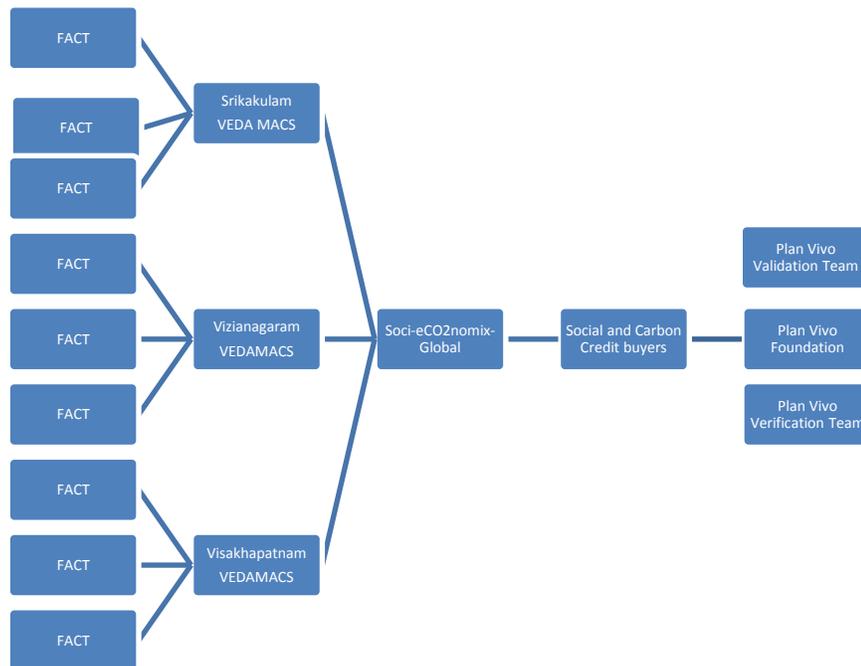
The overall project coordination shall be responsibility of Socio-eCO2nomix-Global with technical assistance from VEDA Climate Change Solutions, India. The field level coordination would be undertaken through the engagement of local NGOs and Community Based Organisations (CBOs). In the longer term, Farmers' Association for Carbon Trading (FACT) would be formed to undertake responsibility for the administrative and monitoring aspects of the project throughout the project period. In the short term the technical and administrative backstopping services would be provided by VEDA Climate Change Solutions Ltd. Capacity building measures would be undertaken by Socio-eCO2nomix-Global in partnership with VEDA MACS to build the capacities of the local communities to undertake the project activities.

In the short term VEDA Climate Change solutions will support in

- Developing the Project Design Document
- Registration and record keeping of the Plan Vivo project
- Monitoring, Reporting and Verification
- Negotiation of Plan Vivo Certificates
- Facilitation and Contracting of Validation and Verification
- Project data management

The above tasks would be passed on to the FACTs over due course of time and simultaneous capacity building activities would be initiated to build the competencies of the village level committees.

The organogram of the project would be as given in the figure below:



Organizational structure:

The organisation is headed by a Chief Executive Officer who is assisted by Executive Director and other professional staff. The Board of Directors provide the necessary guidance and support to the activities undertaken by the organisation. The professional staff include: Carbon Finance Specialist, Community Manager, Statistician, Forestry specialist, Technical assistants. They will be assisted by administrative staff which include Manager, Accountant, Data entry operator etc. In addition, long term and short term consultants are engaged to as required to undertake specialized tasks.

Project Coordinator:

Plan Vivo project will be managed by a project coordinator (Socio-eCO2NOMix-Global). This involves recruiting producers into the project and coordinating training, overseeing technical aspects and conducting monitoring of project activities, coordinating carbon sales with producers, and reporting project activities to the Plan Vivo Foundation annually.

Source of funding:

The project would be supported by Socio-eCO2nomix-Global.

6. Community-led design plan

The community based organizations that have been working in the project areas for long have been encouraged to undertake the planning and implementation of the planting activities. The process included the usage of participatory practices through consultative measures. The project entity has conducted various workshops and forum level meetings with the communities to create awareness and also to understand the impacts of climate change on livelihoods.

The process would be further strengthened through capacity building activities where the village level committees would be empowered to take decisions on the plantation and harvesting of NTFP products from the planted trees.

7. Additionality Analysis

The project has been proposed to sustain and restore degraded lands and generate additional revenue to improve the livelihoods of the participating farmers. Without the project this effort to organize and implement a sustainable management strategy would not take place due to the ongoing absence of financing and technical support. Through the project, resources will be generated to support the development of a management structure including supporting a network of community organizers and a federated body of community and indigenous representatives. The project will require monitoring and include performance-based payments that will create an information system and incentives that will better ensure long-term management. Without the project, financing and technical support, there are no other initiatives that would create an enabling environment for community-based management systems to emerge.

This project is additional as it addresses twin challenges of climate change and poverty alleviation; and also facilitates the capacity building of the communities. The project in the process would support the removal of GHGs from the environment through carbon sequestration. The project would create additional revenue for the resource poor farmers through the generation of the Plan Vivo Certificates, which will be sold on the voluntary carbon

market. The finance generated from the sale of Plan Vivo Certificates will be used to provide payments for ecosystem services to landholders.

8. Compliance with national and international regulations and notification of relevant bodies

The Government of India has not yet established any formal compliance requirements for registration and notification to official bodies for Payments for Environmental Services (PES) projects. However, the project entity had interacted with the MoEF officials and briefed them about the project activities and they have welcomed the same as an important learning opportunity for the country. The project entity proposes to keep the government officials informed about the progress of the project on continuous basis. It should also be noted that this project takes place on private lands and is not under the management of the national forestry system as noted in the Sixth Schedule of the Constitution of the Government of India. As a consequence it is not required to comply with state forest lands regulations.

The project developers fully intend to comply with all relevant national and international regulations governing PES as and when they are formulated.

9. Sources of start-up funding identified

The project is currently funded and supported by Socio-eCO2nomix-Global promoted by VEDA Climate Change Solutions Ltd which has successfully registered an AR CDM project with UNFCCC. The organization is exploring the opportunity of sourcing funds through national horticulture mission for the project activity. Additional funds for the plantation activity are being facilitated through the local financial institutions including banks.

REFERENCES

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