



Biodiversity Conservation

COMMUNITY LED BIODIVERSITY CONSERVATION OF MANGROVE FOREST ECOSYSTEM IN PICHAVARAM



Ministry of Environment &
Forests (MoEF), India



Centre for Environment Education



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET



CEE
Centre for Environment Education



Project Background

The project was developed by the local **Non Governmental Organisation (NGO)**, **CREED** for mangrove restoration through community actions. During implementing, a catastrophe in the form of Tsunami hit the South Asian Region. The project had to be improvised as the village was badly hit with nearly more than 50 deaths.

To meet the immediate needs the **NGO** and the **GEF/UNDP SGP, CEE** planned meetings with the communities and a detailed village plan was developed. Simple village maps approach to develop the actions required was adopted in a 3-4 day participatory exercise. This was later **adopted as a 'model approach'** by the district administration for all affected villages. The NC advised the NGO CREED, on the planning exercise and the NGO plans and 'modus operandi' was taken as a sustainable method for needs assessment by GOTN.

The project aims at reaching out the poor people affected by Tsunami in Thandavarayan Sozhingan Pettai [T.S. Pettai] to desalinate the cultivable lands and upgrade livelihoods of the poor families.

Name of Organisation :
Centre for Rural Education and Economic Development
Geographical area :
Thandavarayan Sozhingan Pettai in Tamil Nadu
No. of Beneficiaries :
1057 people in TS Pettai village of Cuddalore District
SGP Grant :
₹ 14,65,500
Co-Financing Grant :
₹ 84,22,305
Project Time Period :
2004 - 2007
Project Partners :
Onaway Trust (UK); UNICEF; Animal Husbandry; Forest Deptt; Govt. of Tamil Nadu; CARE India; Local Banks; and NABARD.



Preservation and rejuvenation of Pichavaram Mangrove Forest in Cuddalore district in Tamil Nadu is the primary goal of the Project. The Project began as a pilot measure in T.S. Pettai, the largest and strategically placed village in Pichavaram area, covering around 300 hectares. Steps were taken to ensure alternative income through micro enterprises such as manufacture of Dry Fish, Fish Powder, Fish Pickles, Dried and Salted Prawns among the artisan fisher-folks in T.S. Pettai.

- 24 small-holders regained their lands compatible for farming which had turned saline after Tsunami.
- Milk cow distribution program directly benefited 26 families.
- Sheep pairs distribution program among 52 socially excluded families resulted in collective ownership and management.
- De-siltation of feeding canal accrued an employment generation of 1012 person-days.
- Installation of Solar Fish Drier Unit enabled 16 women members form a Self Help Group for production of quality dry fish.
- Land reclamation program had a coverage of 24 acres under Varietal Groundnut cultivation.



Project Activities:

Community Mobilization: A preliminary survey was done by the NGO followed by more community led participatory rural appraisals (PRAs), highlighting the loss and requirements of each of the families in T.S. Pettai and neighboring villages. The Plan was mapped from house to house and a cost plan of Rs 1,09,00,000/- was made in three days. The presentations on the plan were made to the DC with NC SGP and discussions were made on how the costs need to be met. The focus was both on relief and rehabilitation for sustainability. Beneficiaries identified and SHGs were formed among fishing/agriculture communities. Savings and credit activities initiated and bank linkages made. Onaway Trust (UK) and the other International Donors came forward in supporting with boats, fishing nets etc.

Promotion of Sustainable Livelihoods: Gainful and sustainable income generation activities have been initiated among the fisher folk through value added activities. Processing and drying of sea food through two Marine Products Bulk Dryer units installed at TS Pettai. These units run on eco-friendly solar power. Marketing of processed marine products through KVIC, Gandhi Gram and other Khadi showrooms is being done. Export market will also be tapped in due course.

Mangrove Forest Restoration: Plantation of 50,000 saplings is planned in the mangrove forest area as part of the Regeneration Process. A major part of this plantation activity has taken place. The village forest protection committee has been involved in the whole process. The communities through support from the Forest Department are raising Forest and mangrove nurseries. Also 1000 mts canal has been dug for better water arrangements.

Networking and Linkages: The NGO has successfully developed links/networks with Government/Scientific Institutions /Academic Institutions etc for Advocacy, Knowledge sharing and Sustainability.

Results from actions in village:

1. Successful PRAs among the communities resulted in generation of micro plans at village level and involvement of other district, national and international level government and non-government funding agencies. Created a community confidence and affective management plan for a range of activities with clear sharing of responsibilities, roles, decisions and funds. This then led to a shared community vision and a path to move on. NGO CREED was made the nodal agency by the DC for more than 40 affected villages.





2. Rejuvenation of Mangrove Forests led to plantation of 10,000 saplings.
3. People have been trained in saline soil treatment and the process affected 55 acres of land. 24 HHs whose lands were affected have been reclaimed and ground nut cultivation in progress.
4. Renovation of 11280 cubic meter of feeding canal has been initiated with 1012 person days work created for the communities. This has benefited to 78 Households (HHs) and an additional 220 hectares of land has been brought under cultivation for double cropping.
5. Training has been given to 55 farmers on livestock management and to 40 fishing families on processing, drying and packaging of sea food.
6. The organization is planning to initiate biogas and vermi-composting into villages to increase sustainability and greater environmental impacts.
7. 78 HHs given milch animals, 52 sheep and 26 pairs of cows.

Local Empowerment: 14 women SHG with 215 members were formed under the Project. The formation of a Purchase Committee involving members of SHG and a representative from CREED facilitated community-based decision-making process for planning and implementing infrastructural components. Gender equality was maintained in the Project through similar wages for men and women laborers. The Project introduced installation and running

of Solar fish drier unit consisting of 40W solar panel with 12V battery and heat output rate of 3.6 kWh. Links were established with the District Administration and regular consultations with District Collector extensively helped. Linkages with different funding agencies, DRDA and Tsunami Relief and Rehabilitation Officer of the Cuddalore district, Tamil Nadu helped in strengthening efforts towards rehabilitation of Tsunami-affected communities.

Project Beneficiaries

The Tsunami affected poor small and marginal farmers, artisan fisher-folks and socially excluded families in T.S. Pettai village of Cuddalore District, in Tamil Nadu.

Capacity Building Efforts

- School children were educated and sensitized on awareness and orientation for conservation issues of coastal environment.
- Problems were discussed in detail, facilitators assisted in the understanding. The approach was a more process based. Teams of the NGO were also trained initially in the use of these approaches/methods. A greater respect was shown to indigenous knowledge.

• **Technical capacity building program** was organized for the community representatives and members of the Self Help Groups by imparting relevant training on production and management of hygienic Fish Drying with an aid of solar energy devices. Capacity building program on Animal Husbandry were imparted for the poor families provided with Milk cows.

The Technical Details

Activity	Technical Details
Solar Fish Drier Unit	<ul style="list-style-type: none"> • 40 W. Solar Panel • 12 V. Battery • Heat Output Rate of 3.6 kWh
Feeding Canal De-siltation	<ul style="list-style-type: none"> • 1km stretch of feeding canal renovated • 500 acres of farmland under cultivation
Land Reclamation	<ul style="list-style-type: none"> • 24 acres covered under groundnut cultivation
Animal Husbandry, Organic Farming & Bio Gas	<ul style="list-style-type: none"> • 26 families were provided with milk cows • 52 families were provided with Sheep pairs

into the village plans. Such a delivery mechanism led to decide actions.

Project Results

- 1 km stretch of feeding canal was de-silted for ensuring crop productivity across 500 acres of land within the poor communities. The use of facilitators in the project laid the foundation for sustainability. These communicators were socially committed, culturally sensitive, empathetic in interpersonal interactions. The NC and the NGO team motivated the members to share costs, decisions and roles and responsibilities. They were trained in the use of participatory methodologies by Meenakshi Sundaram in combination of the local knowledge suited well to develop the village work plans. These plans evolved the foundations for sustainable actions.

- Locally appropriate actions led to increased local capacities of the poor communities. These entire led CREED being considered by the District Collector as a lead Capacity building Agency; This further improved the confidence levels at the NGO and the local decision making process.



New Delhi: The **President of India, Smt. Pratibha Devi Singh Patil** presented **Rajiv Gandhi Manav Sewa Award** for the Year 2009 to **Shri. V. Nadanabapathy, Secretary, CREED, Chidambaram and Chairman of CREED-KVK**, in the Ashoka Hall of Rashtrapati Bhavan today, 14th November 2010, on the occasion of Children's Day.

The Minister of State of Women and Child Development, Smt. Krishna Tirath and about 250 children from various schools and youth organizations from various parts of the country were also present on the occasion.

The award was instituted in 1994 in pursuance of the Government of India's policy to support and promote voluntary action in the area of child protection/welfare/development and to honour individuals who have made outstanding contribution towards the cause of children.



Centre for Rural Education and Economic Development
V.Nadanabapathy, Secretary,
23, Aranganatha Nagar, Chidambaram – 608 001
Tamil Nadu, India. Pin code : 608001
Ph. : 04144 224987, 9443262222
Email : creed.ngo@gmail.com
website: www.creed.org.in

Regional Co-ordinator
Centre for Environment Education
'Kamala Mansion', 143 Infantry Road,
Bangalore - 560 001
Tel: 080 - 2869094, 2869907, 2862167
Fax: 080 - 2868209
Email: ceesouth@ceeindia.org
ceekarnataka@ceeindia.org

National Co-ordinator
GEF UNDP Small Grants Programme
Centre for Environment Education, Delhi,
C-40 South Extension-II,
New Delhi-110049
Ph: 011-26262878-80
e-mail : prabhjot.sodhi@ceeindia.org
www.sgpindia.org
www.ceeindia.org