



SGP The GEF
Small Grants
Programme



Biodiversity Conservation

A SUSTAINABLE STRATEGY FOR BIODIVERSITY CONSERVATION & LIVELIHOODS



CEE
Centre for Environment Education



Project Background

Centre for Indian Knowledge Systems (CIKS) has been working in the area of biodiversity conservation and organic agriculture for the last 15 years. It had implemented a programme in 2001 – 2002 with support from **UNDP-GEF Small Grants Programme**. This project was titled – “**Community Seed Banks for Conservation of Indigenous Genetic Resources : Empowerment, Capacity Building and Training**”. After completion of this programme it had taken up other programmes supported by other donors and up scaled various activities started under the pilot project. Between November 2008 – 2010, CIKS approached **UNDP-GEF SGP**, to scale up the best practices into a large scale. CIKS then received an additional support to upscale activities that had been undertaken in the pilot project and also to create synergies from existing programmes that can strengthen and sustain the programme.

Results from Phase I (2001 – 2003)

- A network of more than 200 farmers were organized in seven blocks of Kancheepuram District of Tamil Nadu for indigenous seed conservation, exchange of seeds and exchange of information. **100 rice varieties and 20 vegetable varieties were conserved by farmers.**

Name of Organisation :
Centre for Indian Knowledge Systems

No. of Beneficiaries :
1000 scaled upto 25,000 farmers

SGP Grant :
Rs. 13.58 lakhs - scaled upto
Rs. 20.00 lakhs

Co-Financing :
Rs. 3.64 lakhs and Rs. 31.32 lakhs in scaling up

Geographical Area
Tamil Nadu (Kancheepuram,
Tiruvannamalai, Dindigul and
Nagapattinam Districts)

Project Time Period :
2001 – 2003, scaled upto 2008 – 2011

Project Partners :



- Three in-situ conservation centres were set up to multiply rare varieties and also serve as demonstration plots.
- All the Germplasm were shared with National Bureau of Plant Genetics & Resources,(NBPG&R), Government of India, Gene Bank. The project made a significant contribution to conservation.
- Seed evaluation, characterization and multiplication of varieties were carried out in farmers fields and in the in-situ conservation centres. The Germplasm was clearly shared with NBPG&R
- Technical trainings on organic farming were provided to farmers. Initial marketing support through informal linkage between farmers and consumers was established. Support was provided for 25 storage structures for farmers.
- Poster calendars on indigenous vegetable varieties in Tamil and bio-diversity conservation** in English were brought out. Books on indigenous rice varieties in Tamil and English and also on neem were brought out. A multimedia presentation on biodiversity conservation was prepared and shared at both national and international conferences.

Progress of work between 2003 – 2007

The work had expanded to four districts and a network of 3000 farmers involved in organic farming and biodiversity conservation had been formed. Around **120 organic farmers self help groups (SHGs)** mostly women led SHGs were clubbed into **40 'organic farmers' sangams**. Nearly, **275 hectares of farm land** was brought under organic certification. Three organic farmers producers' societies were established in Kancheepuram, Thiruvannamalai and Nagapattinam districts of Tamil Nadu. Studies and business plans were undertaken to take forward organic marketing in a big way. In continuation the second phase of the project with **support from UNDP-GEF SGP has been under implementation since November 2008.**

Project Goal

The major goal of this project is to link agrobiodiversity conservation with enhancing the livelihoods of farmers and provide alternatives to Persistent organic Persistent Pollutants (PoPs) in agriculture.

Project Objectives

- Link biodiversity conservation with marketing network of farmers.
- Conserve indigenous varieties of seeds in the tsunami prone coastal district of Nagapattinam through communities.
- Reduce POPs in vegetable cultivation by conserving indigenous varieties and organic farming.



Major Activities

1. Standardization of Value Added Biodiverse Organic Products This activity was undertaken to ensure how value addition can be done in indigenous varieties of rice, so that farmers are encouraged to cultivate the same. Farmers of the network have already been cultivating more than **100 varieties of rice through an earlier project**. Through a participatory process and discussion with farmers value added products that could be produced using these indigenous varieties were short listed. Different types of Vadagams (fryums type of product) using different rice varieties like **Sooran Kuruvai** and **Sembilipinni** were prepared and standardized. We also entered into a collaboration with the **Indian Institute of Crop Processing Technology (IICPT)** and have taken their help in standardizing certain products like Puttu mix, Dosa mix, Rice vermicelli and Rice snack.

Five products have been standardized and **500 farmers** have been trained. Trainings have mostly been given for women SHGs. Products are marketed locally and women are also in the process of setting up micro enterprises. Currently, efforts are on to make these products completely as organically certified products and sell it to a company **Arogyam Organics Private Limited (AOPL)** for a premium price. All these efforts have created a demand for these varieties and this has encouraged more farmers to cultivate indigenous varieties.

2. Setting up Common Facilities for Manufacturing Products A common facility in the form of **200 sq.ft. structure** with equipment for manufacturing value added products and other basic infrastructure has been established in Kancheepuram district. The land for this facility has been provided by CIKS. This institutionalisation process has created a **new trust and mutual respect between stakeholders.**

3. Survey, Cultivation and Preservation of Indigenous Varieties in Nagapattinam During the Tsunami disaster in 2004, agricultural lands became non cultivable due to the intrusion of sea water. CIKS undertook rehabilitation of the affected agricultural lands and helped farmers make



their land more cultivable. The indigenous rice varieties like Sigappu kuruvikar, Ottadai, Kalarpalai that were conserved by the farmers in the earlier programme came in handy and these varieties were more suitable in the saline soil.

In this phase, we had undertaken a detailed survey of indigenous paddy varieties in Nagapattinam district. The agronomical characteristics were documented in detail. **45 villages** were surveyed and it was found that in **31 villages farmers** were still involved in traditional paddy cultivation. All the traditional varieties could withstand flood and drought which is quite a prevalent situation in Nagapattinam. Most varieties were grown for both paddy and straw purpose which is an essential ingredient for cattle and used for roofing material.

More than 50 farmers in this area are currently involved in the conservation of these indigenous varieties specifically for the community. A community seed bank to store and conserve these varieties is currently being operated in Agani village of Sirkazhi taluk in Nagapattinam, managed through local communities based on a mix between knowledge and technical trainings.

4. Indigenous Vegetable Varieties and Trainings on Alternatives to POPs Cultivating indigenous varieties which are highly pest and disease resistant was used as a strategy to reduce **the use of POPs**. The Ottanchatram Taluk of Dindigul District which is a vegetable belt was chosen for intervention. **11 different** indigenous vegetable varieties were identified in this area and promoted. These varieties were promoted amongst nearly 500 farmers. Trainings were provided to farmers and representatives of NGOs after a detailed survey of the area and selection of villages and beneficiaries. 550 farmers belonging to 20 villages have been currently trained. The trainings dealt with the status of vegetable cultivation at the regional, state and national level, impact of chemical pesticides in vegetable cultivation, significance of organic cultivation, pests and diseases attacking vegetable crops, the symptoms and non-chemical management measures. Demonstrations of preparation of biopesticides and organic growth promoters were also done. Video films on various organic cultivation techniques were screened. A total of 3 training programmes were conducted to farmers and representatives of NGOs from various districts of Tamil Nadu. A two day trainers training programme was conducted for about 20 representatives from various NGOs working in Pudukottai, Dindigul, Ramanathapuram, Madurai and Sivagangai.

5. Exposure Visits Exposure visits were organized to expose beneficiaries to best practices in organic farming. A total of 150 farmers from 20 villages of Kancheepuram, Dindigul, Tiruvannamalai and Nagapattinam districts and 21 NGO representatives from Pudukottai, Dindigul, Ramanathapuram, Madurai and Sivagangai districts participated and benefited through these exposure visits. They also visited **the Biofach 2009 – India Organic Fair held in Mumbai**. Participation of farmers has been a



common feature to share best practices, knowledge and skills.

6. Formation of Farmers Groups in Dindigul and Nagapattinam Districts 28 farmers groups which includes **12 in Dindigul** and **16 in Nagapattinam** have been formed. Members of these farmers groups were trained on the importance of SHGs, record maintenance, responsibilities of members etc. During monthly meetings members of the farmer groups were briefed about the organic farming technologies including Systematic Rice Intensification SRI cultivation techniques, organic seed production methods, organic package of practices of various crops, certification procedures and use of farm implements.

7. Co-financing and Local Ownership Over the years during the implementation of these two projects and also during the in between period various other donors and the community have contributed towards upscaling various components of the programme. Initially, the farmers had started conserving these varieties organically in small patches of land and currently there are **450 hectares** of organically certified lands and another **1000 hecatres** under certification. More than **1000 kitchen** gardens in five districts maintain a wide range of indigenous vegetable varieties. A marketing company exclusively for the marketing of organic products **“Arogyam Organics Private Limited”** has been established with support from farmers contribution and well wishers of CIKS. Mainstream institutions have taken up collaborative research on assessing the nutritive value of indigenous rice varieties and making a case for it's conservation. Organically certified paddy seeds are being produced by CIKS network farmers for the first time. The entire value chain of rice from **“Seed to Market”** has been completed in the last one decade.

Sl. No.	Pilot Project	Scaling up
1.	Conservation of indigenous varieties of paddy and vegetables in one district involving 200 farmers.	Conservation in 5 districts and involving 5000 farmers. From conservation to value addition and marketing.
2.	Addressing food security issues.	From food security to Livelihood securities through biodiversity conservation and organic farming and link to markets.
3.	Conservation of Saline resistant varieties for future use.	Utilisation of Saline resistant varieties during tsunami disaster. Planning for conserving coastal biodiversity and setting up indigenous gene banks.
4.	Indigenous seed production.	Certified organic seed production in link with the state Agriculture University.
5.	Indigenous vegetable variety conservation and training on non-chemical methods for pest control.	Indigenous vegetable variety conservation as a tool for POP reduction.
6.	Informal marketing.	Marketing through a registered company with premium for organic biodiverse products. Benefit sharing mechanism is being developed between stakeholders.



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