

Gram Nidhi

Eco Enterprises for Sustainable Livelihoods

Asia Good Practice ESD Practice Project

A. Executive Summary

Natural Resources have an obvious importance to the economic life and livelihoods of the people living with them. There are obvious reasons why participation of local people in natural resource management efforts seems to make sense. Quite apart from the view that local people have rights to how these resources should be used, the essence of the justification is a practical requirement for local involvement if management is to be effective.

The Centre for Environment Education (CEE) has been working for the last 17 years on model rural programmes to demonstrate approaches to Education for sustainable development in environmentally fragile rural areas. Thanks to these efforts the latent potential of local youth and women has been fostered by establishing village level institutions called Paryavaran Vikas Mandals (PVM). Though significantly engaged in savings and credit the education and exposure for sustainability the PVMs now function as local institutional partners for local development especially of Natural Resources. They have gained enough confidence to register themselves as Community Based Organisation (CBOs).

These conditions gave rise to an eco entrepreneurship initiative called *Gram Nidhi (meaning village fund or corpus)*. The approach rests on an innovative financing scheme wherein a principal, the Eco Enterprise Fund, (EEF) generates the means to working capital investments for eco-enterprises channelled through local partner PVMs. The initiative dovetails capacity building and information servicing support to promote sustainable livelihoods. The Eco Enterprises produce goods and services that are economically efficient and viable, sustainable and socially acceptable using local resources and appropriate technology and options spring from indigenous creativity in response to local needs and possibilities aiming directly to improve quality of lives.

B. Implementing Bodies

Responsibility	Name	Organization
Lead Partner	1. Mr. Ramesh Savalia Associate Programme Officer rpg@ceeindia.org 2. Mr. K. Mohan Krishna Programme Officer mohan.krishna@ceeindia.org 3. Mr. Atul Pandya Coordinator, Rural Programmes Group atul.pandya@ceeindia.org	Centre for Environment Education Thaltej Tekra, Bodakdev Gujarat 380054 India Phone: 917926858002 Fax: 917926858010 URL: www.ceeindia.org Email: rpg@ceeindia.org
Lead Partner	Mr. Suman Rathod Project Officer ceejasdan@ceeindia.org	Centre for Environment Education Jasdan Field Office
Primary Partner	Mr. Parbat Metaliya President	NARMADA Trust At. & PO Lalavadar Taluka: Jasdan, Dist. Rajkot
Local Partner 1	Mr. Jasmat Shamji Metaliya President	Paryavaran Vikas Mandal Lalavadar At. & PO Lalavadar Taluka: Jasdan, Dist. Rajkot
Local Partner 2	Ms. Mamta Naran Metaliya President	Mahila Paryavaran Vikas Mandal Lalavadar At. & PO Lalavadar Taluka: Jasdan, Dist. Rajkot
Local Partner 3	Ms. Devuben Kuka Katesia President	Mahila Paryavaran Vikas Mandal Gundala At. & PO Gundala (Jas) Taluka: Jasdan, Dist. Rajkot
Local Partner 4	Ms. Shantuben Kanji Vyas President	Mahila Paryavaran Vikas Mandal Gundala At. & PO Gundala (Jas) Taluka: Jasdan, Dist. Rajkot
Local Partner 5	Mr. Jilu Jaksi Gadadhara President	Paryavaran Vikas Mandal Amrapur At. & PO Amrapur Taluka: Jasdan, Dist. Rajkot
Local Partner 6	Ms. Shivu Ratnabhai Berani President	Paryavaran Vikas Mandal Kaduka At. & PO Kaduka Taluka: Jasdan, Dist. Rajkot
Local Partner 7	Ms. Jayaben Arjan Metaliya President	Mahila Paryavaran Vikas Mandal At. & PO.Lalavadar Taluka: Jasdan, Dist. Rajkot

C. Project Overview

Project Title

Gram Nidhi: Eco Enterprises for Sustainable Livelihoods

Background

The Rural Programmes of the Centre for Environment Education¹ (CEE) has been working for close to 17 years to demonstrate approaches to sustainable development in ecologically fragile rural areas with resource-base and resource-use problems. One such is the Hingolghadh Programme (established in 1987) spanning 20 villages around the Hingolghadh sanctuary². The villages are nearly equally divided between agricultural fields and degraded common pastures on a rolling terrain subject to recurring periods of sustained drought and lacking in vegetation and water conserving structures. The human population comprises a large majority who are much poorer compared to other regions of Gujarat some of whom depend solely on small ruminant livestock. This is one of the most backward talukas of Rajkot district. Not many of the development schemes of the Government have reached the area, and the ones that have, have not really made much impact.

Livelihood patterns, previously dependent on a diverse agriculture, have shifted to monoculture of water intensive cash crops (viz., pulses, food grain and then cotton) requiring high inputs of chemical fertilizers and pesticides, escalating the cost. Increasing ground water exploitation has led to a deepening of ground water table and overall degradation of natural resources. The community faces extreme shortage of resources.

Poor endowment of fixed and working capital for agricultural inputs and use of inappropriate technologies, has led to low levels of productivity with high cost, resulting in considerable loss of time, interruption and lack of continuity in production processes. The marginal community depended on moneylenders for meeting emergent credit requirements.

Foundations for ESD: The seeds of CEE's interventions

In its early stages of work CEE designed and implemented environmental education and eco-development programmes for communities living in proximity of such habitats since 1988 and contributed actively to the understanding and practice of participatory management of the protected area. Beginning with educational and technology-related services, the initiative gradually moved into the realm of building organizational capacity in the communities, as a basis for sustainable local development.

CEE undertook an eco development programme in the Hingolghadh area in November 1987. A field office with a team of three persons was set up in Jasdan. The broad objectives of the programme are :

- Creation of an ecological awareness among the people regarding their environment.
- Development of an alternative resources base for meeting people's needs of fuel, fodder, timber, etc. and optimization of existing resources through introduction of new and improved technologies and practices.
- Facilitating an atmosphere of understanding between the Park management and the people, whereby the Park Management becomes sensitive to the resource constraints of the people. The people on their part become partners in the conservation effort.

Believing in the efficacy and strength of collective action for a substantive and sustainable resource development to take place these efforts have been towards building village level groups, through a process of education and skill transfer. Group building processes have been initiated in each village. From making a beginning in sharing simple responsibilities, the groups have now begun focussing on tasks that can be taken up collectively.

Training programmes and workshops for skill transfer and awareness raising, and tours to visit organisations and places where exemplary work was done in the area of fodder development, animal husbandry and soil and water conservation measures, were conducted as and when necessary.

This gave rise to village level groups called Paryavaran Vikas Mandals³ (PVMs). These groups have the distinction of receiving the first set of bank loans and schemes in the whole Saurashtra region (Western Gujarat) and not

¹ The Centre for Environment is a national Institution in India engaged in developing programmes and materials to increase awareness about the environment. Established in 1984, CEE is supported by the Ministry of Environment and Forests, Government of India

² The Hingolghadh Sanctuary is a Nature Education Park of roughly 15 sq. km located in Jasdan taluka, Rajkot district of Gujarat, Western India. It is surrounded by 6 villages and bisected by a state highway.

³ Paryavaran Vikas Mandal translated as Natural Resources Management Development Group of local youth and women are significantly engaged in savings and credit backed by ecologically healthy initiatives.

defaulting in the last 8 years while implementing a range of activities serving as local partners such as:

- Village level Water Conservation Structures, Afforestation, organising fodder collection and distribution for drought relief and cattle care camps with Animal Husbandry Department
- Observing Environmental Days and Events and organising Farmer Forums, Workshops, educational events and exposure visits to educational institutions/organizations for improved farming practices
- Demonstrating solar energy equipment, kitchen gardens, handpump maintenance training and distribution of repair kits, livestock and health surveys and setting up and managing rural library services, organizing painting, elocution, singing and talent contests in schools, and
- Representing village self governance through village elections and helping strengthen village level governance system.

Interventions by CEE have represented an opportunity for initiating long term sustainable development initiatives, through empowering the communities, facilitating partnerships and creating local decision-making structures directed towards building community assets.

- The local community is now well versed with the concept of the NGO and how it's functioning is different from the Government.
- Transparency and openness about procedures leads to participation by community in the programs.
- There is extreme diversity even amongst project villages. Further there is not much horizontal communication amongst the community. Villagers in one village may not ever have been into another of CEE's project village. Through a process of continuous community engagement inter village exchange has increased.

Much of these activities depended upon institutional capacity that was built over a period of time.

The Gram Nidhi Project

CEE's interventions created an environment conducive to the development of a set of village level institutions concerned with local problems and committed to development. These constitute potential partners for future initiatives. Some of the PVMs registered themselves as Trusts and that provided a legal basis as organizations that are community based and situated in the village working towards natural resources management. The need was felt for an approach to make use of existing institutional mechanisms to finance working capital and explore more favourable market options in the service of nature giving rise to an eco entrepreneurship initiative called Gram Nidhi⁴.

GN aimed to promote sustainable livelihoods⁵ for marginal rural communities in semi arid areas using microfinance as a tool

Following were the key objectives of the project:

1. To establish atleast 25 eco enterprises through members of PVMs in 5 project villages using micro credit
2. To demonstrate eco entrepreneurship through the Gram Nidhi model
3. To enhance the capacities of these communities for effective management of natural resources environmentally sound and economically sustainable micro enterprises

The approach is an amalgamation of two functions of a system

1. A financial function that administers an Eco Enterprise Fund (EEF) that provides working capital credit to PVM members for investments in Eco Enterprises.
2. An institutional development function provides capacity building and information service support for the establishment and promotion of eco entrepreneurs

Working capital credit from the fund is channelled through the local partner "NARMADA Trust⁶" with the sanction of the Eco enterprise Investment Committee (EIC). The EIC membership comprises of

1. Centre for Environment Education
2. NARMADA Trust
3. Paryavaran Vikas Mandal, Lalavadar

⁴ This activity currently being piloted in 5 villages has won the first ever India Country Level Development Marketplace award organized by the World Bank from among 1500 proposals from the country. The Centre for Environment Education (CEE) is a national institution in India engaged in developing programmes and materials to increase awareness about the environment.

⁵ "A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable if it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base" (Scoones,1998)

⁶ A local NGO formed by inspired PVM members of Lalavadar village registered under the Trust and Societies Registration Act.

4. Mahila Paryavaran Vikas Mandal, Lalavadar
5. Paryavaran Vikas Mandal, Gundala
6. Mahila Paryavaran Vikas Mandal, Gundala
7. Paryavaran Vikas Mandal, Amrapur
8. Paryavaran Vikas Mandal, Kaduka
9. Paryavaran Vikas Mandal, Kalasar
10. Local NABARD⁷ representative, EIC Member – Ex officio
11. Local Bank representative, EIC Member – Ex officio
12. Local Government representative, EIC Member – Ex officio

Eco Packages: Prior to the commencement of the project some of the possible options of Eco enterprises were derived jointly by the PVMs and CEE and named as Eco Packages. Development of these packages was based on criteria such as close inter-linkages, maximization of synergy, wealth creation, occupational diversification, viable institutional mechanisms, and growth potential.

Package 1	Horticulture + Drip / Sprinkler Irrigation + Bio -pesticides + Vermicompost / Vermi-wash + Wind pumps + Boundary Plantation (Jatropha + Kaucha)
Package 2	Horticulture crop + vegetables + Drip Irrigation + Farm Pond + SMC structures + Vermi Compost / VermiWash + Wind pumps
Package 3	Animal Husbandry - Improved Breed + Preventive Nutritive Care + Stall feeding + Chaff Cutter
Package 4	Nursery + Agronet (Net house)
Package 5	Agro Processing
Package 6	Eco Shop (Agro processed Products)

During the first year the EEF charges an interest at 7% to be repaid along with principal to be returned towards the end of the year. A projection⁸ of the EEF for the first 5 years based on interest earning is as follows:

Year	Int. Rate	Principal	Interest Earned	Contribution to	
				NARMADA	to Principal
				supported by the project	
1	7%	500000			
2	9%	525000	36750	10500	25000
3	9%	550000	49500	24750	25000
4	9%	575000	51750	25875	25000
5	9%	600000	54000	27000	25000

* All figures in INR

⁷ National Bank for Agriculture and Rural Development

⁸ Assuming 100% recovery

Implementation Plan: Following is an annual implementation initially carried out by the project.

STAGE I	STAGE II	STAGE III	STAGE IV
QUARTER I	QUARTER II	QUARTER III	QUARTER IV
SETTING SYSTEMS	SELECTION	IMPLEMENTATION	EVALUATION
<p>EEF and committee</p> <p>↓</p> <p>Define Criteria for Eco enterprise selection and Set Procedures</p>	<p>Launch Workshop</p> <p>↓</p> <p>Invite Proposals</p> <p>↓</p> <p>Scrutiny & Appraisal</p> <p>↓</p> <p>Sanction</p> <p>↓</p> <p>Enter into Agreement</p>	<p>Eco enterprise projects BEGIN</p> <p>↓</p> <p>Capacity Building & consultation</p> <p>↓</p> <p>Monitoring</p>	<p>Experience Sharing Documentation</p> <p>↓</p> <p>MARKETING</p>

Project Orientation: In the process of implementation of the Gram Nidhi project, the first step was organizing and hosting a number of consultative meetings to share, explore and discuss the principles of this unique micro-credit program for sustainable development.

Gram Nidhi launch seminar.

This seminar was organised at CEE, Ahmedabad to share and disseminate the GN concept to a wider audience. 50 participants representing NGOs, Government, individuals, media and CEE attended the seminar. Also, a consultative meeting was organised with staff of the Rural Programmes Group of CEE. Some key suggestions that emerged from discussions are:

1. GN needs to have an advisory committee of representatives from banks, government, educational research and corporate institutions from whom guidance for implementation can be sought and learnings can be shared
2. GN should implement truly entrepreneurial activities and not stray into conventional social development approaches
3. It is necessary to develop appropriate mechanisms and the capacity of the local partner and PVM members to minimize interventions by CEE.
4. Eco Packages need to be flexible and should
 - Involve personal consultation and technical inputs of experts to Eco Entrepreneurs
 - Be comprehensive incorporating economic, ecological and market linkages
 - Be channelled through PVMs to reduce administrative duplication and ease procedures to build an enabling mechanism for PVMs
5. Funds for Eco Entrepreneurship should be given to PVMs to disburse to individual members based on resolutions passed in PVM meetings to avoid defaulting. Contrary to conventional banking, in a rural finance of this character mortgaging is not a suitable alternative. If sufficient funds are available then credits may be insured to reduce risks of defaulting in the event of adversities and natural calamities.

Local level orientation meetings - Preliminary meetings with youth and women PVMs and the NARMADA Trust were held separately. During these meetings the project was introduced and the financial and institutional aspects of the project were discussed. The groups were also consulted on the potential content for Eco-packages.

A consultation with invitee members of EIC was held on the objectives, approach and the methodology of the project. They also had been clarified the importance and the tasks of the EIC members.

Selecting Eco Enterprises: When a solid institutional system was established and different stakeholders were consulted, the actual implementation on the filed level could start. The project has focused on facilitating livelihood options through Eco Enterprises in both the farm and non-farm sectors. The EEF had provided supplementary financing of activities that focus on sustainable rain fed farming systems. With respect to non-farm opportunities, the project had provided assistance to develop Eco Enterprises such as livestock development, adding value to farm produce, and trading. Both farm and non-farm employment opportunities were built upon existing local knowledge.

The first step was to select criteria for the Eco Enterprises for which the members of the PVM could get a credit. The following eligibility criteria were prepared by EIC for Eco Enterprise financing:

- Projects should be environmentally sound, economically viable and technically feasible. Demonstrate an impact on environmental conservation efforts at the project site and provide financial benefits to the community and local environmental organizations, contributing to local employment.
- In the proposed enterprises low cost environmentally friendly practices and options should be adopted contributing to the strengthening of biodiversity and sustainable development. Compulsorily at least three of the following practices/technology should be applied: bio-pesticides, vermi-compost/bio-compost, vermi-wash, bio-control by yellow strip, cow urine, and saplings.
- To ensure viability smaller operational units were considered. The average project cost for on-farm development activities will be restricted to Rs.20,000/- per enterprise for individual eco-entrepreneurs
- The successful enterprise has possibilities of large scale replicable in the other nearby rural area.

The priority of choice for an enterprise was given to the one that best fitted the following:

- Enterprises related to women's livelihood, undertaken by women and contributing to the empowerment of women.
- Those members who have not been able to receive credit from financial institutions or the government due to their small size,
- The innovative nature of their business and/or the financial risks involved
- The entrepreneurs' economical and social status is poor
- Enterprises undertaken by group rather than by an individual
- Preference to non-conventional against conventional energy sources
- The entrepreneur has primary understanding and skill for the enterprise and has basic infrastructural requirements available.
- Preference to projects related to on and off-farm development while those such as household infrastructure, household comfort, are avoided.
- Enterprises that cater primarily to a local market demand
- The enterprise has given emphasis on local traditional technology than big technology.
- The return is high compare to investments in enterprise. Value addition and marketing can enlarge the profit.

For the two major livelihood sectors –agriculture and animal husbandry- some additional specific criteria were formulated:

For agriculture enterprises:

- Readiness to experiment with organic farming and farming processes with low water requirement of crop with seed selection suited to local biodiversity
- Readiness to adopt water harvesting introduce unconventional crops like medical, aromatic, horticulture, vegetable, flowers, etc. with mixed cropping pattern

For animal husbandry enterprises

- Readiness to take animal husbandry as a professional enterprise including processing of milk, the procurement of productive cattle and creating value addition on the market
- Readiness to adopt integrated animal husbandry such as fodder plots, proper shed, urine collection and use, bio-gas, composting, mineral mixture, silage, etc.

D. Project Review

1. Social Relevance and Cultural Appropriateness

The sustainability of any development initiative is possible only when the participants change their role from passive beneficiary to active managers of one's own enterprise. The active involvement of PVM members in the whole process of the forming of Eco-enterprises and the building of the entrepreneurial skills of individual members of the community has made the Gram Nidhi project to a success. The model further proves that the poor are bankable and the timely access to credit can bring about changes in the lives of poor community. The PVMs members have been successful in obtaining loans on reasonable terms and rate with simple procedures. They have also been instrumental in motivating many members who were earlier redundant, in taking up some innovative livelihood activity. Thus, the experience of this model can be a source of inspiration for other communities with similar socio-economic and ecological conditions.

The transition from a being a small or marginal farmer to an Eco-entrepreneur has had an empowering effect on

the members of the community. The PVM's have evolved into strong CBOs, engaged in more than just the development of enterprises. The different educational and capacity building activities have enabled the participants to develop a perspective upon their own livelihood, but also on the community as a whole. In different Eco-enterprises the members have learned to work in a group, sharing responsibilities. The empowering effect of the Gram Nidhi project is especially visible with the women of the community. The women participating in the animal husbandry enterprises have (often for the first time) gained an independent source of income, increasing their decision-making power within the household. Often the women spend their own income on the education of the children or investments in the household. In many organic farming Eco Enterprises women have taken the loan from EEF and convinced their men to start organic farming. This shows that women role in decision making of agriculture planning has greater than before.

There are a number of possible forms of entrepreneurship in the community, e.g., informal groups, individuals, registered societies, companies, etc. The communities should be capacity built to understand these various forms so that they can decide and complete the process for any of them. In order to achieve the goal of sustainable village development, there is a need for evolving negotiated and agreed-upon parameters of sustainability relevant to the local conditions, which are monitored by the community itself. The concept and culture of sustainability, therefore, needed to be internalized by the community members. Success of the project depended in facilitating this.

2. Degree of Satisfaction of Stakeholders & Target Beneficiaries



“Making the Tulsi Sudha (a herbal drink) taught us the basics of business but in marketing it we were exposed to the real world”



“We have travelled the journey from a beneficiary to an entrepreneur.... From a farmer we have also become a trader” We knew what is a buyer's market now we are learning to understand the sellers market”



“In doing organic farming we have started making our own fertilisers and pesticides”



“My enterprise of Ghee (clarified butter) now runs the house”

Liliben of Lalavadar village Jasdan block, Rajkot district, heads the Mahila Paryavaran Mandal, comprising of 15 members. She also manages the Gauras Bhandar, set up by her mandal. This manadal sells organic products like cotton wicks, herbal tea, stone ground flour, ghee (clarified butter) and milk-based sweets. “In the last eight months we have sold ghee worth Rs.70000 to outlets such as Asal, an organic produce shop that functions on the Jain principles of Ahimsa. Against the market price of Rs.140, the ghee that we made commanded a price of Rs. 225/-” she informs proudly. She explains the production and quality control process as well. “The ghee is produced by our mahila mandal members, who took small loans and bought the Gir cow and Mehsana buffalo. We ensure that our products are organic. We even provide organically produced cattle feed to our animals. All of us cross check the quality of ghee produced by each other. We ourselves go to cities like Ahmedabad to establish market links. Though competition is tough, it’s the quality that helps us get orders”, she adds.

Liliben has yet another business plan, her mandal is diversifying into organic cultivation and other products, which will help them earn, if prices of ghee declines. Sakarben, of the same village took calculated risks while shifting the ‘production technology.’ Armed with a loan of Rs. 5000/- provided by the Gram Nidhi project she began organic cultivation when she realised agricultural production costs are low. She began by growing pulses and groundnut organically. “Organic cultivation meant that I could not use chemical pesticides. So, I started with these two crops as these are usually not attacked by pests,” she explains. Satisfied with the results, she now plans to go in for organic cotton cultivation as well.

“Even if I am not able to target niche organic markets and sell my farm produce at prices of chemically produced products, my profits will increase as our production costs are low. In addition, my land gets nurtured as well,” she says.

Small efforts at entrepreneurship, but then the list of entrepreneurs who have started small is endless. Not everyone starts at the top and with multimillion rupee investments.

(Extracted from an article “Angootha chhap to India Inc” written Ms Indira Khurana based following a visit to assess the project)

3. Project Sustainability

The scheme has an inbuilt process of organizational and financial sustainability. The local partner is groomed to provide long-term stewardship to the activities. The project as a whole rests on financial sustainability due to its market based operating principle. The repayments to the capital and interest earned by the Trust will continue to be a revolving fund for future operations. The success of the programme will help leverage funds from other sources viz., Government Agencies and Financial Institutions.

At the local implementation level the project continues to operate in 5 villages and while knowledge generation and policy related activities will extend well beyond geographical domain of Jasdan block. In the same vein, CEE will contribute to and draw upon experiences and platforms in national or international forums. *Gram Nidhi* has a strong orientation to replication in similar socio-economical conditions. The tools of this replication will range from research, policy reform, documentation and dissemination. Mechanisms and opportunities to mainstream lessons and best practices arising from the programme will be sought out all levels.

One of the well-known lessons of livelihood promotion efforts around the world is that while credit is a necessary condition for promoting small and micro-enterprises, it is not a sufficient condition. A variety of other inputs and services are required to complete the package. This includes systematic identification of livelihood possibilities, motivating and training potential rural producers to take up those livelihoods, ensuring the supply of raw materials and inputs, equipment, infrastructure and technology, establishing linkages with marketing channels, and in some cases where needed, seeking changes in regulations and policy, while not all of these may be needed in all cases. Comprehensive livelihood promotion effort needs to be capable of providing these services when needed and should be in line with the developmental aspirations of the people.

E. ESD Implication

1. Implication as Sustainable issues

Economic Implication: The rural finance system is difficult to access for the rural poor and the interest rates are high compared to other urban consumer loans. Farmer usually approach moneylenders for credit, who charge an extremely high interest rate (some times 36% per annum). This situation discourages farmers to start innovative enterprises or livelihood options. The Gram Nidhi project has increased access to credit through simple procedures and low interest rates (7 % per annum). By providing a solid training and capacity building track and setting strict criteria for the social, economical and environmental sustainability of the enterprises supported, the Gram Nidhi Project has had a strong impact on the development of the communities.

The formation of Eco Enterprises has diversified the local rural economy, strengthening it to deal with shocks and stresses by providing a distinct, niche market to the rural community. The diversification of livelihoods has increased employment and the income level. The simple procedures, the low interest rates on the credit for enterprise and the support in the development of skills and innovative enterprises have had a constructive impact on the reduction of poverty in the project area. The combination of micro credit and support in building sustainable and economical viable enterprises has helped farmers to reduce their indebtedness. Finding a niche market and marketing directly, bypassing the middleman has further strengthened the livelihoods of the community.

The Eco-enterprises in the Gram Nidhi project form a chain of suppliers and consumers on local level, thus further strengthening the community development. A priority has been given to demand-based proposals as opposed to imposing externally identified priorities. This ensures a sustain commitment to the project and the further strengthening of the chain of local suppliers and consumers. .In organic farming, for example, the input required (bio-pesticides, vermi-wash, vermi-compost, bio-compost) is produced by local Eco-enterprises, rather than bought ready-made from a non-local company. Both the production and the marketing of these local organic input products have created employment on the local level on the farm and in the eco-shop.

The profit from the Eco-enterprises has benefited the community in several ways. Because Gram Nidhi is aiming on setting up a local chain of enterprises, the profits of an enterprise will stay within the community. A second result is that the increased additional income through organic farming, animal husbandry, agro processing and direct marketing, has been invested in child education, health and safe drinking water. Part of the income generated through Eco Enterprises has been invested to expand the enterprise in the future, which will generate more employment at local level and reduce poverty.

Social Implication: The sustainability of any development initiative is possible only when the participants change their role from passive beneficiary to active managers of one's own enterprise. The active involvement of PVM members in the whole process of the forming of Eco-enterprises and the building of the entrepreneurial skills of individual members of the community has made the Gram Nidhi project to a success. The model further proves that the poor are bankable and the timely access to credit can bring about changes in the lives of poor community. The PVMs members have been successful in obtaining loans on reasonable terms and rate with simple procedures. They have also been instrumental in motivating many members who were earlier redundant, in taking up some innovative livelihood activity. Thus, the experience of this model can be a source of inspiration for other communities with similar socio-economic and ecological conditions.

The transition from a being a small or marginal farmer to an Eco-entrepreneur has had an empowering effect on the members of the community. The PVM's have evolved into strong CBOs, engaged in more than just the development of enterprises. The different educational and capacity building activities have enabled the participants to develop a perspective upon their own livelihood, but also on the community as a whole. In different Eco-enterprises the members have learned to work in a group, sharing responsibilities. The empowering effect of the Gram Nidhi project is especially visible with the women of the community. The women participating in the animal husbandry enterprises have (often for the first time) gained an independent source of income, increasing their decision-making power within the household. Often the women spend their own income on the education of the children or investments in the household. In many organic farming Eco Enterprises women have taken the loan from EEF and convinced their men to start organic farming. This shows that women role in decision making of agriculture planning has greater than before.

Environmental Implication: Sustainable development of a region is inherently linked to the ability of its communities to generate livelihoods on a sustainable basis. Ecological niches are better able to achieve stability if their human populations and communities achieve sustainability in their livelihoods. This is particularly true for those ecological areas that are fragile and are witnessing degradation or transformation due to human pressure, like the area around the Hingolghadh sanctuary.

The effect of the Gram Nidhi project on the ecological sustainability in the region is three-fold. First of all through the introduction of various innovative enterprises the economy is being diversified, therefore no longer solely depended on (chemical) agriculture. Secondly, the Eco-enterprises that are being introduced are screened on their sustainability. The enterprises are dependent on local natural resources and are designed in such a way that the stress on the local environment decreases. An example is the introduction of organic farming, the production of organic inputs like vermin-compost, organic fertilizer and bio-pesticides and the guided introduction of small-scale animal husbandry. Thirdly the introduction of Eco-enterprises is being accompanied by an extensive education program. Through exposures, trainings and workshops the local community has been made aware of the environmental impact of different practices and the alternatives.

Even in the first year the results in organic farming have been clearly visible. Farmers remark that their land is becoming more fertile and less hard and dry. Diversification of crops, farm-bunding, water conservation and the plantation of trees and medicinal plants is stimulated, treating the farmland as an eco-system in it self. Another advantage is the diminishing frequency of occupational health hazards. In chemical agriculture the various poisonous pesticides and chemical fertilisers present severe occupational health hazards. The diversifying of crops, taken up under the Gram Nidhi project has also benefited the nutritional status of the households involved.

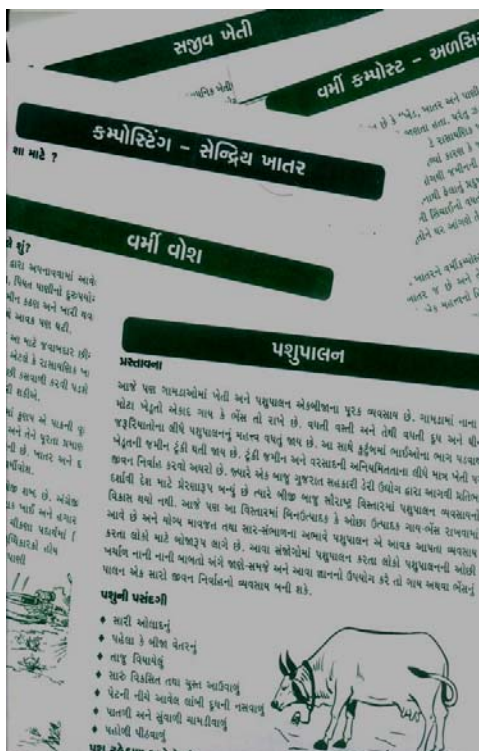
2. Implication as Effective Communication and Decision Making

The sustained capacity building program, trainings, exposure-visits, workshops and consultation meetings organized for the PVM members have contributed to their abilities and skills. This included an improved functioning of the group, (adherence to norms, rotation of leadership, and greater transparency in the financial transactions of the EEF) and improved knowledge and awareness about sustainable livelihood strategies and practices. An example is the training of farmers in organic farming practices; an exposure visit for women engaged in animal husbandry to the far-off North Gujarat; and skill upgrading of men and women engaged in agro-processing.

Awareness and educational materials about various Eco Enterprises, technologies, practices, marketing, and setting up Gram Nidhi Resource Centre has played great role in awareness building and education among not only PVMs members but also among other rural community.

To make sustainable and economically viable eco-enterprises possible, production support and information servicing through various capacity building and educational programmes is crucial. Therefore education and

capacity building in various forms is an integral part of the over-all strategy of the Gram Nidhi project and these activities have been organized and implemented by the Gram Nidhi Resource Centre.



Gram Nidhi Resource Centre: The Gram Nidhi Resource Centre at CEE's office in Jasdan was set up with the support of the Technical Assistance Fund. About 200 educational and technical materials - books, magazine, technical reports, pamphlets, CDs, audio cassettes, etc. on agriculture, horticulture, organic farming, herbal medicine and farming, agro-processing, cottage industry were procured by the centre.

Educational materials were also developed under Gram Nidhi Project to create awareness and understanding on the practical implementation of eco-enterprises and eco-technologies. Five folder-cum-posters on vermi-compost, organic farming, vermi-wash, bio-compost and animal husbandry have been developed and published. A series of leaflets on sustainable farming was also published. These were distributed among the eco-entrepreneurs and other individuals interested in implementing technologies and adopting practices on their farm.

An important part education and capacity building were the individual consultative meetings, visits of staff personal to farm/enterprise site and the organising of various exposure visits, training programmes and consultative meeting with experts. These will be described in the following, divided in the four different sectors of intervention (organic farming, animal husbandry, agro-processing and establishing marketing linkages)

Organic Farming

- Two consultations on organic farming were held to understand various aspects, need, and approaches of organic farming. Bio-pesticide samples were given to 80 farmers to carry out practical demonstration on their farm. Demonstrations at local fairs were put up to create awareness among the community about eco-friendly technologies and practices such as vermi-wash, bio-pesticides, bio-growth promoters.
- Fifty-five farmers participated in an organic farming meet organised by the Gujarat Organic Farming Association in Kutch. This experience has provided a platform to farmers to learn and share their concerns about organic farming. During this visit farmers have also visited two organic farms, there discussing the potential decrease in production, the availability of organic input, guidance and marketing opportunities.
- A three-day intensive training programme was organized for the entrepreneurs, focussing on organic farming, animal husbandry, enterprise and accessing the market. Seventy men and women participated in the workshop. During the workshop discussions were held with various experts, practioners and consultants in the field of organic farming, pest and disease management, animal husbandry, soil management, water management, certification and marketing, enterprise planning.
- To get an understanding of the experiences of rain-fed organic farming for small and marginal farmers, the team members visited Kutch. A detailed discussion with team members of the NGO YUVA and farmers on organic input, cultivation practices, bio-control measures, productivity and marketing was held. The team also had a discussion with the NGO MARAG, working on women milk cooperatives on their operational systems and (financial) management, veterinary care and capacity building requirements. Visits were organised to two farmers who have been practising organic farming for the last 7 years to learn about the cultivation practice of a specific local variety of cotton. The main learning of the visit was the understanding that traditional and modern scientific knowledge on cultivation practices, pest and disease control and maintaining productivity, have to be integrated in organic farming.
- As a part of providing continuous consultation and guidance Shri Ashok Shah, Shri Dipak Prajapati, Shri Kapil Shah and Shri Hardevsinh Jadeja, who all have experiences in organic farming, visited the organic farm to provide guidance to farmers.

Animal Husbandry

- Twenty-five couples, having an animal husbandry Eco enterprise were taken on exposure to the highly developed milk farming region in North Gujarat to understand animal husbandry and dairy cooperative activities. The entrepreneurs had a discussion with Shri. Ratibhai Pandya (a retired professor and manager of

Gowshala, Lokbharati Sanosara) on commercially viable and ecologically sustainable animal husbandry enterprises, based on his 15 years of experiences in animal husbandry. Smt. Krishnaben Patel, a pioneer in animal husbandry who started with one cattle and currently owns 40 cattle, shared her experiences with fodder management and the use of dry fodder in a region like Jasdan. To understand the functioning of a cooperative the participants were taken to Charada Milk Producer Cooperative.

- Animal husbandry Eco Entrepreneurs were provided support for buying a good quality breed, animal care, cattle feed and the marketing of milk products like butter oil (ghee). To explore and learn about the cow based animal husbandry eco-enterprise members also visited Bhuvneshwari Pith, Gondal (the indigenous local Gir cow breeding and management centre).

Agro-processing

- *Tulsi Sudha, Satvik Sani and stone ground organic flour* eco-entrepreneurs were given technical skill training of procuring raw materials, processing, quality control, packaging, labelling and marketing. They were also trained to grow the required ingredients in their own kitchen garden/farm what will reduce their production costs and provides quality assurance.
- Jasdan is predominantly a cotton growing area. The production of organic wicks for religious purposes would provide a good opportunity for an agro-processing enterprise. The women group was taken to an exposure visit to discuss the possibility of enterprises and market linkages.
- The Amrapur PVM was taken on an exposure tour to Rajkot and Gondal to understand the various models and the efficiency of a mini oil mill. The investments requirements, needed infrastructure, marketing opportunities and management of the enterprise were also discussed.
- To explore the possibilities of preparing herbal medicine from local herbs the team visited TECH (a NGO), Amreli. To explore various possibilities of bio-pesticides, cow urine based medicine and vermin compost they visited the Ashram Shala, Khadasali.
- To explore the effectiveness, cost and quality of a home-based stone mill for grinding organic flour the team visited Rajula town, which is famous for the grinding stones used a stone mill.
- Jatan is a development support NGOs for organic farming and marketing support in various parts of Gujarat. To understand its experiences, possibilities and demand of organic products marketing discussion was held with Jatan team members.
- The team visited Prayas (a NGO) for exploring various alternative and low cost technologies viz. drum stick cutting, cleaning screen, grading machine, standing grinding machine, small cutter, etc.

Marketing Linkages and support for Eco-enterprise: The goal of the Gram Nidhi project is to stimulate sustainable enterprises; therefore it is essential that all participants grow in their understanding of marketing. The possibilities of creating market linkages need to be explored. A number of activities, workshops and trainings were organized especially for this purpose.

- To understand the required quality, possible market linkages and the export potential of organic produce, a consultative meeting was organized in Lalavadar village in which 35 farmers, agriculture experts and traders from various parts of Gujarat, West Bengal and Bihar participated.
- A meeting was organized to promote the concept of an eco-shop and its possibilities for forwards and backwards linkages. Three youth, that were interested, were taken on an exposure trip to Purnima Agency, Rajkot (specialized markets inputs of organic farming).
- The eco-entrepreneurs of organic Sani and Tulsi Sudha were supported in establishing marketing linkages through the participation in events, introducing the enterprises with organisations and marketing outlets, preparing advertising materials.
- The milk cooperative structure in this region is non-operational so milk marketing opportunities are very limited for animal husbandry entrepreneurs. The entrepreneurs decided to form an informal group with the name *Goras Bhandar* for the collection, purification and selling of butter oil. The woman in charge of the Goras Bhandar was trained to clean, weigh, quality test, and package the butter oil.
- The organic farming that started in the second phase of the project will not technically be organic in the first year production. Many marketing agencies in Ahmedabad, Baroda, Rajkot and Bhuj were contacted to buy this organic produce. One of the owners of organic shop from Ahmedabad, Shri Nayanbhai Dave has visited the organic farming Eco Enterprises. This visit has convinced the trader of the various cultivation practices and the quality of the produce and showed a great deal of interest to buy this produce at a premium price.
- A marketing link with Mitra – an organic outlet in Rajkot city has been established. Farmers' from project villages are growing organic vegetables and supplying through the Mitra outlets. This kind of marketing linkages is the driving force and motivation for farmers to adopt eco-friendly practices and organic farming.

3. Implication as Institutional and Civil Capacity Development

Under the TAF various experts in agriculture, animal husbandry, agro-forestry, horticulture, agro-processing and water conservation were consulted to prepare the different options of Eco-packages. Existing government funding was taken into account, while calculating the costs for the different packages. These options were discussed with PVM members during consultative meetings, held in each of the project villages. In the whole process of planning, preparing the Eco Enterprise and the implementation of activities the PVM-members have actively participated. All the activities implemented were based on community consultations. The fact that 70% of the credit was provided in kind, shows that the community was directly involved in shaping the necessary interventions.

A proposal format (Annexure 1), prepared in consultation with the partners, the selection criteria and a list of eco-packages was distributed to members. A list of the major eco-package options/components identified for Eco Enterprise can be found as Annex 3.

The first phase EIC meeting to discuss the various enterprise proposals was held at CEE-Jasdan office. CEE-Ahmedabad, NARMADA Trust, CEE-Jasdan, PVM representatives, local NGO representatives of SAWARAJ and BAIF and a retired agriculture officer attended the meeting.

4. Implication as a Linkage among International Educational Priorities

Learnings, experiences and outputs of the Gram Nidhi project are being shared with agencies and communities in Gujarat and other regions where issues are compellingly common and need joint action. CEE has contributed in national or international forums through delivery of talks, putting exhibition, meeting, consultation, placement of students, and media coverage.

A paper titled "Gram Nidhi: A Community Based Eco Entrepreneurship Initiative towards Education for Sustainable Development: A Case from Gujarat, India" was submitted in the International Conference "Educational for Sustainable Future" organised by CEE and supported by various national and international organisation. Among the workshop outcomes some of the practical ideas that were shared for implementation of ESD from a community-based perspective included the Eco Entrepreneurship on the lines of the GN initiative.

The material that this case provides for ESD learnings is tremendous. While GN is a story of the last 2 years the ESD foundation for it was laid for over a decade of community engagement. The true nature of ESD in the Jasdan experience is a process of great deal of delearning within the community before the project commenced.

It is true that ESD has to address the basic quality of life issues, but it does not end there ESD is a continuous intellectual inquiry and GN provides that opportunity.

The International Educational Priorities (DESD, EFA, UNLD and MDGs) may be common to the world but the processes to achieve those are unique to individuals and the common interest groups working towards them who are totally unaware about it and vice versa. What is key is to link up these is a framework that caters to both two extremes – international priorities and local SD and ESD needs. Gram Nidhi provides the framework to link both of these.

F. Further Implementation and Recommendation

In the design of the Gram Nidhi project prerequisites have been created for the sustainability of the project itself. The intervention through micro-finance in the livelihoods of the local community is not a temporary provision, with will have a lasting impact on the quality of life of the community.

The following aspects of the implementation of Gram Nidhi will ensure the sustainability of the project:

- Through capacity building the existing community-based/owned organization NARMADA Trust, that is the partner in implementing the project will gradually take over the project implementation after the project cycle has ended. NARMADA Trust will be guided and supported in this by CEE.

- Even after the project has ended CEE will continue with the developed system to provide the necessary support on technical aspects, product design and marketing, the transfer of technologies, training, strengthening the flow of market information.
- The development and strengthening of linkages between CBOs and the private sector, banks and other financial intermediaries will help to ensure the access to markets, the technical expertise, and finance is sustained after the project is completed.
- The NARMADA Trust and PVMs have emerged as partners in the implementation of Eco Enterprises through EEF (e.g., collective purchase and supply of farm inputs).
- There has been an increase in the corpus of the EEF, made possible by the recovery with interest of loans advanced for Eco Enterprises. This will make future investments and expanding credit possible.

Expansion

- The EEF will be given to other members who have not taken credit in the first year.
- The EEF will be expand scope of credit to other project village PVMs
- CEE has targeted on other project villages and community where SHGs exist to promote this Gram Nidhi concept in a phased and sensitive manner. Formal systems will enable easier flow of commercial finance for working capital and other needs.
- CEE is making efforts for expanding Gram Nidhi concepts in other villages and proposals have been submitted to funding agencies.

The very concept of *Gram Nidhi* has a strong orientation to replication well beyond the geographical domain of Jasdan block. The ecological and economic conditions in Jasdan are comparable to many different areas in and outside Gujarat. The tools for replication range from action, research, policy reform, documentation and dissemination. In other project locations of CEE similar activities, following the principles of Gram Nidhi, have commenced with the support from external agencies. CEE and Narmada Trust have jointly taken the lead in networking with agencies working in the area.

Annex 1: Form for Submission of Eco Enterprise Project

1. Name of the Eco Entrepreneur
2. Name of PVM
3. Complete address including Telephone
4. Category General / Small / Marginal farmer or SC/ST or any combination
5. Eco Enterprise title
6. Whether Loan availed by individual / Group
7. Details of land owned by Individual / Group
8. Basic infrastructure required for Eco Enterprise
9. Basic infrastructure owned by Entrepreneur
10. Location
11. Eco-technology / practices to be incorporated in Eco Enterprise
12. Eco Enterprise Cost (in break up)
13. Total Project Cost
14. Eco Entrepreneur's Contribution
15. Loan proposed to be availed from Gram Nidhi
16. Technical Assistance needed
17. Implementation Schedule
18. Duration
19. Marketing
20. Environmental impact of the Eco Enterprise
21. Any other relevant information

Annex 2: The Memorandum of Understanding

A MoU was signed between CEE and NARMADA Trust for financial and project management.

Following are some of the salient features:

- CEE transfers EEF (in two equal instalments) to NARMADA Trust to be treated as a revolving fund for Lalavadar, Bhoyra, Amrapur, Gundala and Kaduka project villages.
- The agreement is for a period of 18 months from September 2005 to April 2006
- GN fund will only be used for EEF activities.
- CEE reserves the right to extend the EEF for a mutually agreed period of time or to transfer the endowment to any other Trust of the project villages or create new system. This may be done in consultation with all partners and on due evaluation at the end of the project

NARMADA Trust will:

- Manage EEF through separate Bank Accounts. At grassroots level implementation and Guide and Monitor implementation of Eco Enterprises
- Maintain separate account keeping records and progress reports from time to time for the EIC and CEE.

The EIC will be the authority to sanction funds for Eco Enterprises from EEF based on

- Quality
- Ecological sustainability
- Economic viability
- Technical feasibility
- Marketability and
- Socio economic status of entrepreneur.

The CEE, NARMADA Trust, PVM and experts will form selection criteria of Eco Enterprise and facilitate the sanctioning process. If there any disputes, misunderstandings or any form of financial mismanagement arises due to any reasons the Trust should inform CEE. Sustainability is the goal so the Trust will give emphasis this in the entire process. In every step of planning, implementation, and monitoring the CEE, Trust and PVM will be involved.

The fund must be used for specific objectives set under Gram Nidhi project and needs proper management and implementation, which lies with CEE and Trust. CEE has the right to ask the Trust clarity on any critical situation. If CEE found any unprofessional conduct in financial management CEE could end the agreement and transfer the fund to another CBO. If any difference arises the EIC will try to find out way out. If this is not possible the Director of CEE or his/her representative's decision will be final.

CEE will also help in the diversification of the Eco Enterprise Fund lending including agriculture, animal husbandry, herbal farming, horticulture, agro-processing, and soil and water conservation. Wherever necessary, CEE will help in providing skill training, supply of inputs and marketing of produce, besides building general awareness for various aspects. CEE will also help in generating of other government and non-government fund for implementation of sustainable Eco Enterprise activities.

Annex 3: Eco-package components identified

1. Agribusiness (Tenancy farming)
2. Agri-clinics and agribusiness centre
3. Agro-processing / Food Processing unit
4. Alternative energy technology: Solar cooker, Solar tube light, solar water heater, solar fan, solar pump, solar dryer, gohar gas, gohar gas engine
5. Animal Feed Unit
6. Animal husbandry
7. Apiculture unit
8. Bio-fertilizer production and marketing
9. Crop Protection Centre
10. Dairy
11. Direct Mkt. / Retail Mkt.
12. Eco-service provider
13. Farm machinery unit
14. Floriculture: Rose, Mogra, Galgota, Lily
15. Fodder crops: Maize, Jowar, grass
16. Grain bank
17. Green house/net house
18. Green manuring
19. Handicraft
20. Herbal medicine
21. Herbal pesticides and bio-fertilizers
22. Herbal Processing Unit
23. Horticulture Clinic
24. Medicinal Farming: Safed Musali, Galo, Kaucha, Curry leaves
25. Milk processing unit and Marketing
26. Mini oil mill
27. Nursery
28. Organic Agriculture: Cotton, Groundnut, Wheat, millet, Green gram, Sesame, Cumin, Garlic
29. Organic Horticulture: Custard apple, Drum stick, Amla, Ber, Lemon, Gunda, Papaya.
30. Organic shop
31. Organic vegetable production and marketing): Brinjal, tomato, cabbage, cauliflower, guar
32. Plantation: Teak, bamboo, Jatropha
33. Private wasteland development
34. Soil & Water conservation structure: check dam, well recharge, bore well recharge, farm pond, farm bund.
35. Soil Testing Laboratory
36. Tool bank: Chaff cutter, Thresher
37. Vermiculture/ vermin composting/ vermin wash
38. Veterinary Clinics
39. Water conservation technology: drip, sprinkler, porous, pipeline,
40. Wind pump

Annex 4: Time line

Month	Activities/Task
July-August, 2004	<ul style="list-style-type: none">➤ Launch seminar➤ Consultation and orientation➤ Preparation and signing of MoU➤ Formation of rules, regulations and responsibilities of partners
September, 2004	<ul style="list-style-type: none">➤ Entry point activity- workshop & demonstration➤ Formation of eco-packages and EIC➤ Criteria for Eco-enterprise sanction
October, 2004	<ul style="list-style-type: none">➤ Workshop on marketing➤ Exposure and training on agro-processing➤ Exposure and meeting for Eco-shop➤ Exposure for animal husbandry➤ Preparation of performa for eco-enterprise➤ Guidance and technical support for preparing eco-enterprise proposal
November, 2004	<ul style="list-style-type: none">➤ Couple exposure tour animal husbandry➤ First EIC meeting➤ Technical guidance and support eco-enterprise inputs➤ Technical training for Sani and Tulsi Sudha
December- January 2004	<ul style="list-style-type: none">➤ Marketing support for agro-processed produce➤ Technical guidance and support➤ Training and consultation for enterprise
February, 2005	<ul style="list-style-type: none">➤ Exposure visits Rajula, Middle Gujarat and Pranshla (Upleta)➤ Setting Gram Nidhi Resources Centre➤ Workshop on organic farming – Setting up for next Phase➤ Establishing Satvik Goras Bhandar at Lalavadar and Gundala village
March, 2005	<ul style="list-style-type: none">➤ Mid term evaluation➤ Second phase proposals meetings, Lalavadar, Amarapur and Gundala
April, 2005	<ul style="list-style-type: none">➤ Second phase proposals meetings, Bhoyara and Jasdan➤ Eco-technologies demonstration workshop, Amarapur
May, 2005	<ul style="list-style-type: none">➤ Participation in Organic Farming Meet and exposure visit➤ Meeting with Krushi Organic Development Foundation, Bhavnagar➤ Second EIC meeting
June-July, 2005	<ul style="list-style-type: none">➤ Development and publication of educational materials➤ Formation of Input buying committee and buying of inputs for organic farming enterprise➤ Consultation and support to enterprises

Annex 5: Eco Enterprises of the first year

S. No.	Eco-enterprise	Number
1	Organic Agriculture (Cereals, pulses, oilseeds, cash crops and vegetables)	49
2	Animal Husbandry (using local cow / buffalo breeds) Produce for Sale/self use: Ghee, milk, urine (bio control) and manure.	45
3	Organic Sani (Sweetmeat from Sesame)	1 (group of 14)
4	Tulsi Sudha (A Herbal Tea mixture containing locally grown herbs from kitchen gardens)	2
5	Stone ground organic flour Value addition: Making snacks (Dokala, Idali, Khaman, Bhakri)	2
6	Eco-shop (Organic farming inputs: organic fertilizers, bio-pesticides, bio-hormone, bio-control.)	2
7	Organic Horticulture (Pomegranate, sapota, lemon)	3