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EDI- EUROPEAN UNION PROJECT FOR ECONOMIC REGENERATION OF KACHCHH & SAURASHTRA

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Editorial

As we all know India lives in villages. However, the irony is that the situation in villages is not good enough for one to make a decent living. The means of living is in a distressed state. Extreme state of poverty is compelling people to migrate or face the destiny to die of hunger. The situation for them is getting worse with every passing day.

Agriculture still remains the only means of survival for most of the village population. Other survival options also draw resources from agriculture to a great extent. Globalization, liberalization and the process of privatizing the economy has started playing havoc for the poor. If correct strategies are not drawn out, the situation may become severely grim. It is pertinent that new avenues are created wherein the rural population finds options to earn and eke out a living. Agribusiness is seen as one such opportunity.

We all know that farmers like any other community are subjected to different degrees of exploitation. It happens because they are still unorganized. The state of affairs has remained insensitive to the need of this community. Schemes were made but the machinery's to take these schemes to its beneficiaries failed in its delivery. On one hand these schemes were far removed from reality and on the other they chose the wrong target.

Agribusiness offers scope for educated youths from the community to take on the task of bringing about a change. Scope does exist both in the pre harvest as well as the post harvest stage. There is a need to carry out this change using the Farmer-to-Farmer strategy. The process will empower agro-entrepreneurs, farmers, and others. Immense scope exists for women too. Most of them are skilled to carry out such tasks. This could be seen as a strategy towards mainstreaming gender issues in the sector of business.

The food crops command the security of the nation. They provide us with nutrition and also generate income for growers. However in almost all cases the margin is the lowest with the producers. Maximum benefit goes to those who supply the raw material and who do the trading in these grains. Lack of appropriate infrastructure, credit support information and knowledge are seen as barriers for those who are engaged in the production process. NGOs have been in the recent times deeply involved in efforts that address some of these issues. Micro Credit, Agriculture Extension and establishing producers' cooperatives have helped many farmers. This mostly relates to backward linkages. Concerted efforts need to be undertaken to strengthen the forward linkages which deal with issues like careful harvesting, grading, processing, marketing, packaging, storage and transportation. This sector has wide scope for our entry too.

Readers are requested to contribute success stories, narration of events and incidents, methods adopted by them to motivate potential youths to make a living.

- Nabarun Sen Gupta

"..... success depends in a very large measure upon individual initiative and exertion, and cannot be achieved except by dint of hard work."

- Anna Pavlova

TECHNOLOGY MODELS FOR RURAL APPLICATION IN AGRI-BUSINESS SECTOR

Manoj Mishra
EDI Faculty

Spirulina is microscopic blue green algae. As it grows through photosynthesis it may be grouped in the category of vegetable foods. It grows naturally in freshwater, brackish water and even in saline environment. For last several centuries this algae is being consumed as food by people in different parts of the world. In 1974, in the United Nation World Health Conference, Spirulina was declared as "The best food for tomorrow". NASA declared that 1-kg of spirulina contains as much nutrition as 1000 kg of assorted vegetables. It contains 65.7% protein, 16.3% carbohydrate, 6.7% fat and 9.3% crude fibre, the rest is vitamins, minerals etc. It contains 5000% more iron than spinach, 500% more calcium than whole milk, 1000% more beta-carotene than carrots, 2000% more beta-carotene than papaya, 300% more protein than fish, meat or poultry and above all without cholesterol. It has curative effect on an anaemic person, and also cures night blindness, pain in joints, diabetes and is best for children with retarded growth.

Cultivation:

The unit operation and the process of spirulina algoculture consists of the following steps:

1. Preparation of culture medium.
2. Mother Culture.
3. Design of algal ponds and inoculation of mother culture.
4. Growth monitoring.
5. Harvesting.
6. Drying and packing.
7. Quality control.

Culture Media Preparation:

Zarrouks medium is used throughout the culture operation of spirulina. The following chemicals are to be weighed separately and mixed with pure, contamination free tap water. It is better to analyze the physical and chemical parameters of water source once in four months.

Chemical compound: (For 1 litre)

1. Sodium bicarbonate - 16 gm
2. Dipotassium hydrogenphosphate - 0.5 gm
3. Sodium Nitrate - 2.5 gm
4. Potassium sulphate - 1.0 gm
5. Sodium Chloride - 1.0 gm
6. Magnesium Sulphate - 0.2 gm
7. Calcium Chloride 0.04 - gm
8. Ferrous Sulphate - 0.01 gm
9. Ethylenediamino Tetrachloro - 0.08 gm
10. Acetic Acid - trace & A 5 M Solution preparation.

I. A 5 M solution Preparation: (For 1 litre)

- ◆ Maganous Chloride 1.81 gm
- ◆ Molybdic Acid 0.017 gm
- ◆ Zinc Sulphate 0.222 gm
- ◆ Copper Sulphate 0.079 gm
- ◆ Boric Acid 2.86 (The pH should be around 9.5)

II. Mother Culture Preparation:

The given mother culture is taken as inoculum and is transferred into the sterilised medium with special precautions to maintain the purity of the culture. The mother culture is slowly scaled up to 10% (dilution). It is always

necessary to keep 10 lit of mother culture ready in a glass aquarium in a laboratory.

III. Algal Pond Preparation :

This can be done in three steps:

- ◆ Excavation and formation of pond outline.
- ◆ Preparation of sides and bottom
- ◆ Surface finishing.

Any convenient size of the pond may be used to culture the algae. The shape of the pond shall be rectangular with good internal finishing. If soil is sandy or clayey proper support is necessary to avoid wall collapse. Surface finishing is done in two ways, one by covering with black polythene sheet or by plastering a thin layer of cement. Normally 15-20 cm culture depth is advisable in spirulina technology.

IV. Growth Monitoring

This step includes on-line measurement of culture depth temperature, pH (normal range is between 9.0 to 10.5) and agitation. Spirulina being a blue-green algae has gas vacuoles, which enable the trichomes to migrate to the zone of optimum radiation and heat-mass transfer. Hence regular agitation by hand stirring is necessary to keep algae in healthy condition. In case of mid summer if light intensity is high it is necessary to cover the pond partially by shading material to prevent the algae from photo bleaching. The covering material can be prepared by coconut thatch, palm thatch etc.

V. Harvesting

Harvesting of Spirulina can be carried out when optical density of culture reaches 0.8 to 1 at 560 nm. The nutrient medium employed helps to float the trichomes in early hours of the day and hence harvesting can be carried out by scooping the floating algal bio-mass with a cotton cloth filter of 20-30 mesh/inch. This phenomenon rarely happens. In case of non-floating phenomena harvesting can be done by pouring the algal suspension on cloth filter supported by bamboo (or for that matter any log that can support) frames. The harvested slurry is then washed with tap water to remove salts and to bring the pH to 7.5 to 8.0.

VI. Drying and Packing

The washed algal concentrate is dried under sun. Algal mass is then packed in an air tight container.



Production demonstration of Spirulina in Cement Concrete Tanks

VII. Quality Control

Proceed for micro kjeldhal test to any laboratory for estimating protein content.

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Business Opportunity Identification & Guidance (BOIG) - Experience Sharing

Dr. Ananth Panth
EDI Faculty

A visitor to the dry belt of Kachchh and Saurashtra, particularly the talukas reeling under three successive droughts, would wonder what could be the opportunity one could pursue to earn a living. Long stretches of uncultivable land, scattered patches of greenery and abundant wild growth of prosopis juliflora and marshy patches are a common sight. One would also come across long queues of migrating cattlestock all along the road during the month of December and January. They are migrating to greener pastures in search of water and fodder. However there are islands of prosperity too. There are areas along the coastal belts and around some urban belts, one can come across stretches of land under agriculture and horticulture. This is seen along the coastal areas of Gandhidham, Mundra and Mandvi. How would an outsider who is removed from this reality make suggestion to those who have to deal with such a situation.

The search for livelihood, therefore, would depend on a guidance frame that would seek to understand both the resources needed and the skill necessary using a participatory framework. It is my belief that the process must begin with sharing of concerns and developing agenda for actions using the adult learning process method. Much would rely on collective understanding of what would work and what not.

During the BOIG exercises conducted in urban and rural locations, one understanding that I developed was the existence of difference in the approach adopted by the less resourceful and less aware rural people compared to that of the resourceful urban people. The usual method adopted to help them identify business opportunity was to help them understand the seven broad parameters. This included resource availability, infrastructure support availability, skills required, demand of the product, etc. Interestingly people came out with some other parameters too. Such as capacity to invest, the gender and social dimensions etc. Interestingly the product they identified gave priority to these dimensions. The investment capacity of majority of the people was very low. Most of them could take out amounts in the range of Rs.2000 to Rs.10,000 to invest in the new ventures. Very few entrepreneurs hailing from rural areas could invest amount beyond this range. This factor therefore sets the boundary around which one would rotate for identification of a business opportunity.

Generally in rural areas both women and also men select business opportunities that are less skilled and are production driven. This is true as most of them have almost no exposure to education and technical know-how and as all that they want to do is to continue with what they had been doing. Also the need to get employed and generate income remains at the back of their minds. They see the enterprise as a means to create income opportunities for the family and relatives. The women preferred doing 'Bandhni' (tie-and Dye), mirror work, hand embroidery designs, soft toys, cotton and wool based item manufacturing etc, whereas men give preference to activities, which are related to the skills they have been practising.

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On the other hand, entrepreneurs from urban and semi urban areas select business opportunities based on existing market demand. Many of them preferred initiating businesses in the service sector like opening of computer learning centers, telephone booths etc. Entrepreneurs choose opportunities in the area of supplying materials for construction (housing as an activity has boomed up due to the higher demand for raw material like mud and cement blocks in the earthquake affected areas). Trading and opening of petty business like tea stalls were also selected.

One dimension which got noticed is the caste-based and gender division of roles and its association with business opportunity identification. Women selected businesses which were home based (not to travel much), and businesses which could draw support from male members. Social factors also play a significant role in the selection of business opportunities.

As a trainer I must confess that guidance on identification of a business is a tough job and much would depend upon the sensitivity of the trainer to understand the logic that people have when they identify a product for business. This sensitivity will help in the right identification of a product. Let us limit our guidance only to help men and women identify the parameters and refrain from the role of an advisor.



Women weaving shawls

The European Union (EU)

The European Union, previously known as the 'European Community' is an institutional framework for the construction of a united Europe. It is a unique, treaty-based, institutional framework that defines and manages economic and political cooperation among its fifteen European member countries. The Union is the largest stage in the process of integration begun in the 1950s by six countries-Belgium, France, Germany, Italy, Luxembourg and the Netherlands - whose leaders signed the original treaties establishing various forms of European integration. While common EU policies have evolved in a number of other sectors since then, the fundamental goal of the Union remains the same: to create an ever closer union among the people of Europe. Presently 15 European countries; viz. Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom of Great Britain and Northern Ireland are the members of European Union.

Principal objectives of the Union are to establish European citizenship; ensure freedom, security and justice; promote economic and social progress and assert Europe's role in the world. EU is run by five institutions, viz. European Parliament (elected by the people of the Member States); Council of the Union (composed of the governments of the Member States); European Commission (driving force and executive body); Court of Justice (compliance with the law); and Court of Auditors (sound and lawful management of the EU budget).

Gujarat Earthquake & EU

On the day of the Earthquake the Commissioner for External Relations, European Commission (EC), Mr. Christopher F. Pattern was on his visit to India. Knowing about the tragedy, he not only offered his condolences but also showed his solidarity with the ill-fated people of Gujarat which culminated into an assistance of Euro 100 million (Rs. 400 crores) for relief and rehabilitation efforts in the region. EDI is privileged to be a partner of EU in this effort.

The EDI

Entrepreneurship Development Institute of India (EDI), is an autonomous and not-for-profit Institute set up in 1983, by IDBI, IFCI Ltd., ICICI Ltd., SBI and Government of Gujarat. EDI has been spearheading entrepreneurship movement throughout the nation through education, research and training.

It set before itself the role of a 'Resource Centre of Excellence' that conducts programmes on New Enterprise Creation, Enterprise Growth, Business Counselling Skills, Capacity Building of Teachers, Entrepreneur Trainer-Motivators, Bankers & Managers / Executives of Business Organisations, etc.

One of the priority areas for EDI is to identify, motivate, train and create micro and rural entrepreneurs through self-employment and small business development programmes. It is being implemented by about 350 Voluntary Organisations throughout the country. The Institute has completed 13 years of fruitful partnership with NGOs in implementing Micro Enterprise Development Programmes (MEDPs) and other related programmes, particularly in rural areas. The Institute has conducted 610 MEDPs during the decade, training 15,243 rural youths, besides a cadre of 586 Rural Entrepreneur Trainer-Motivators.

The Institute has also been working towards capacity building of NGOs and sensitizing environment and support system. In the programmes on micro-credit, about 100 professionals from NGO sector have been developed to manage credit operations. To facilitate smooth flow of credit, EDI has also been sensitizing bankers, through NGO-BANKER Interface programmes.

These successes and commitments have culminated in recognition of its achievements at national and international levels.

At the international level the Institute is supported by reputed bilateral and multilateral agencies viz, the World Bank, Commonwealth Secretariate, UNIDO, ILO, FNSt, British Council, Ford Foundation and the European Union which has extended support to its project for 'Economic Rehabilitation of Kachchh & Saurashtra.'

Our Partner NGO

ANaRDe Rural Support Program (India)

This organisation is a local unit of the Acil Navsarjan Rural Development Foundation popularly known as ANaRDe Foundation. The parent organisation was established in the year 1979. The organization is one of the first of its kind and has paved the way for many corporate houses towards fulfilling social responsibility. Started under the initial support of Aegis Chemical Limited, the organisation has grown in its size and in its spread. Today it has its existence in 16 states in India. The organization had mobilised 7000 Million Rupees during the year 2001-2002 for various rural development projects and has provided support to around 1.5 Million families spread across 16 states, 80 districts and 15000 villages. In Gujarat they are into various actions. They have their presence in 25 districts, 8750 villages with reach to as many as 0.2 Million families.

It aims at reaching out to poor families and helping them increase their income and upgrade their Quality of Life. Development through training and capacity building is the strategy they hold close to themselves. They use the vehicle of Self-Help Group and provide opportunities to the poor (social and economic) to upgrade the skills.

It is also involved in implementing various poverty eradication programs. Their target group includes the small and marginal farmers, the small time businessperson, and the artisans. In addition the organisation is also involved in various other development projects- infrastructure, water resources development etc. It also organises entrepreneurship development programs in the rural as well as urban areas. Support for such projects come from national as well as international partners.

The organisation, in due recognition of its contribution was awarded with 'Rajashri Award' for its involvement in Integrated Rural Development Initiatives and the 'FICCI Award' in recognition of Corporate Initiatives in Rural Development during the year 2001-2002.

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