

## **NRDC – Communication on Progress**

**National Research Development Corporation** is dedicated to the promotion, development and commercialization of new technologies. Charter includes technical, commercial and financial measures needed for closing gaps in the innovation chain through which an idea, invention or process is converted into a product in the market. Technology must suit local needs and to make impact, must give constant thought to even small improvements which could make lives better and cost effective. Some of the promotional societal activities contributing to broad-based development leading to sustainable growth are :

### **Promotion of Rural and Household Technology**

To promote appropriate technologies relevant to rural and backward areas and demonstrate their relevance in terms of employment generation and providing better health and sanitary amenities, the Corporation is networking with NGOs and other developmental agencies and taking appropriate technologies to rural areas. During 2009-10, the Corporation extended its support to various rural based projects that have directly or indirectly benefited several people in terms of gainful employment.

The Corporation also networked with (i) Saathi Samaj Seva Samiti, Kumharpara (Bastar) in Chattisgarh in promoting glass beaded jewellery craft among rural artisans and with (ii) Society for Rural Industrialization, Baraitu (Ranchi) in Jharkhand in introducing the improved techniques of lac processing among rural populace. Besides opening these 2 new centres, Corporation strengthened its existing centres in areas like J&K, Tamil Nadu, Orissa, Andhra Pradesh, Manipur. The Corporation participated in 15 exhibitions during the year and displayed technologies, products, machines, suitable for rural people to create awareness about new technological developments and commercially viable projects in the areas of veterinary, dairy, agriculture.

### **New Initiatives During The Year**

All out efforts are being made to expand the area of operations of the Corporation. Services of a few experts and consultants are being utilised to avail higher degree of technical expertise for evaluation and value addition of various technologies. The Corporation continued its efforts in the cluster development programs in the initially identified two sectors, viz., sericulture and dairy.

## **Cluster Development Programs**

The Corporation continued its efforts in the Cluster Development Programs in diverse sectors, viz., Sericulture, Dairy and Coir.

### **A. Sericulture Cluster Development**

NRDC through CSB and in turn NSSO, Bengaluru and CSR&TI, Mysore had drawn schemes to identify and support financially and technologically the sericulturists of Kanakapura area. The components are as follows :

- Establishment of Chawki Rearing Centre (CRC)
- Establishment of Farmers Field School (FFS) and 'on farm' training.

To sustain the sericulture industry NRDC proposed the said scheme and implemented it in the Kanakapura Taluk.

The Chawki Rearing Centre has shown improvement in yield and also adoption of better methods of sericulture farming in and around 20 villages of Kanakapura taluk. The training program to the farmers drawn from the villages is continuing batch wise at CSR&TI, Mysore.

At Ramanagaram, another 200 farmers have been benefited by the demonstration of the equipments sericulture technologies. The Farm Field equipments are currently being utilized by the training section of Silkworm Seed Technology Laboratory for the purpose of dissemination of technology to the farmers of the Bengaluru rural/seed area and also to those from other sericulture States of India.

### **B. Rural Dairy Cluster Development Program for unorganised sector**

NRDC organised an interactive meet to provide skill development training on value added dairy technologies like paneer, khoa, yoghurt at Bijnore and Muzaffar Nagar. This has helped in improving the awareness of technological practices for dairy firms and halwai associations. It is observed that they have also adopted hygienic methods of milking and storing.

### **C. Coir Cluster Development**

The Corporation continued to support the coir clusters by providing new Anupam Looms developed by CCRI, Alleppey to enhance the output of the coir product producing units. During the year one loom has been provided to a Coir Cooperative in Kerala and two more looms have been made ready for distribution to other cooperatives in Kerala.

### **Social Responsibility Of Business Enterprise**

Apart from the transfer of eco-friendly technologies to the industry vigorous efforts are being made to meet the Social Responsibility by the Corporation. The initiatives being taken for Gender Development and Regional Balanced Development in the country were continued during the year:

#### **A. Productive Empowerment of Women in Madhya Pradesh under the Millennium Development Goals Program**

Madhya Pradesh, heartland of the country has the largest population of tribals in the country. Tribal communities are located in remote rural areas which have very few opportunities for livelihood. The landless tribal men and women are employed as agricultural labourers. In spite of assistance provided to them by various development agencies, their economic condition remains Below Poverty Line with its attendant problems of malnutrition, high infant mortality and poor maternal health.

It is against this background, the Corporation with support from the Department of Women and Child Development, the Department of Tribal Development and Mahila Arthik Evam Vitt Vikas Nigam Ltd. initiated a training program in the manufacturing of wooden toys and other articles. The attendance of the trainees was marked through mobile/WLL phone based voice biometric system, where the trainees' voice code acts as the user name with the unique password being recognised by the remote server. Training with certification was provided to 1,200 women and their wages were credited directly into their bank accounts via NEFT.

The Corporation has also created a support infrastructure by constructing buildings with an innovative design which can be used as a learning aid for children and semi-literate women.

#### **B. Program for North-Eastern States**

The Corporation organized four Entrepreneurship Development Programs (EDP) of one month duration each at Roing, Arunachal Pradesh; Kolasib, Mizoram; Jorhat, Assam and Tura, Meghalaya. The programs at Roing and Kolasib were on food processing, on EDP at Jorhat, and on extraction of banana fibre and its fabrication into useful products at Tura. The North-East

Industrial & Technical Consultancy Organization (NEITCO), Guwahati organized these programs on behalf of the Corporation. The Corporation also provided financial assistance to NEITCO for purchase of 2 sets of banana fibre extraction machines. The programs were attended by 100 young participants with due representation of women from North-Eastern states.

### **C. Women Entrepreneurship Development Program (Gender Development)**

The Corporation has initiated Women Entrepreneurship Development Program with the objective to empower women by improving their economic status and bringing them into the mainstream of development through entrepreneurship development.

The aim of the program is to promote, inspire and encourage women to take up entrepreneurship; create awareness about technologies which can reduce the element of drudgery in their lives; ensure their involvement in the development of science & technology; motivate women for stressing the need for economic empowerment and provide skill training on the need based technologies through R&D institutions/universities.

More than 3,000 students got benefited and a number of students have shown interest in taking up entrepreneurship. There was a demand from the university for providing skill training to women students in taking up entrepreneurship. Technologies have been identified by Bharathiar University, Bharathidasan University and Andhra University for food processing and honey extraction in collaboration with TNAU. Other technologies identified include banana fibre extraction, sanitary napkins and areca nut plate making in collaboration with Tiruchirappalli Tiny/Small Industries Corporation and value added products in Fisheries in collaboration with CIFT, Visakhapatnam.

### **D. Technology awareness program in coir fibre processing for the benefit of women worker**

This is an ongoing three year program started in the year 2008-09.

In the extraction process of husk from coconut, defibering machines are used. The fibre is harsh and so has to pass through the fingers of women workers. A new process has been developed which is eco-friendly, does not generate effluent and the machines can be easily operated by women. The process yields good quality coir yarn with more output, superior texture and zero effluent. As a result of this large number of women workers working under various coir cooperatives have been benefited. This enhanced the overall output of the coir processing units.

## **Strengthening the Technology Base**

NRDC has forged strong links with scientific and industrial institutions in India and abroad. The Corporation has formal arrangements with many of the major R&D organizations/universities, technical institutions. These institutions are primary sources of information for the marketable technologies available for setting up of new industries thus giving rise to the availability of quality product to the common masses and in turn leads to employment generation.

## **Technology Protection**

Development of technology calls for large investments and often involved considerable risk. NRDC has established a single window for protecting Indian inventions. To disseminate information related to protection of Intellectual Property Rights (IPR), NRDC has been organizing seminars for IPR awareness and also training program for drafting patent specifications in different parts of the country. During 2009-10, IPR related seminars were held at Indore, Gorakhpur, Baroda, Uttarkashi, Chennai, Trichi, Pauri Garhwal, Ghaziabad, Agartala, Kollam, Dehradun, Tehri Garhwal, Gwalior, Srinagar, Kochi, Pant Nagar. In addition to this, Corporation representatives delivered lectures on IPR issues to students, researchers ,scientist at about 100 different Research Institute/Universities/ Colleges.

## **Creating Awareness by Publications**

NRDC continued to publish its Hindi monthly science magazine "Awishkar". The publication is aimed at fostering the spirit of inventiveness, innovativeness and entrepreneurship amongst the students, young scientists and budding entrepreneurs and creating scientific awareness in the masses by disseminating information on S&T topics. Special issues of the magazine on Indian space program, human genome, nano-technology, etc. have been widely appreciated..