

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 :

Rural Training and Demonstration Centers

NRDC launched this program with an emphasis on; (a) Improving the living conditions of rural people; (b) Increasing the employment potential through the application of appropriate rural technologies utilizing local resources;

(c) Upgrading the traditional skills; and (d) improving rural sanitation and health care . The corporation is trying to achieve these goals by developing appropriate technologies in collaboration with R&D organizations and transferring technologies suitable to the rural areas through setting up Demonstration cum Training cum Replication Centers in association with voluntary / Govt organizations operating in the rural areas.

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.

A. Sericulture Cluster Development

The Corporation undertook development of sericulture clusters in the State of Karnataka by providing training on the modern technologies in the sericulture and financial support for adopting new technologies by the clusters. The highlights of the program are summarised below :

- 131 sericulture farmers have been trained at CSR&TI, Mysore on the advanced methods of silkworm rearing in-house
- Corporation further provided support for the establishment of Commercial Chawki Rearing

- Centre in the Sericulture Cluster Region of Kanakapura Taluk for the supply of quality silkworm chawki to the sericulture farmers
- Corporation further strengthened NRDC Farm Field School for facilitation of farmer-to-farmer training and demonstration of improved technologies and are getting good response in terms of participation and healthy interaction by the sericulture farmers.

B. Dairy Cluster Development

A sizeable quantity of surplus milk gets wasted by unorganised sector due to lack of awareness of correct practices of the technology and processes, handling and storage and marketing results in poor quality products, lower product conversion results in smaller monetary returns. NRDC took a diagnostic study to identify the problems and needs of halwais (sweet makers) through structured questionnaire and awareness programs for the dairy cluster development. NRDC organized such cluster meets at Muzaffarnagar and Saharanpur and one to one meet with halwais at Meerut to create awareness on improvement of quality of products. The program was structured to include workshop, seminar, one to one meet with halwais creating awareness on new technologies, processes and methods to adopt and improve the quality of milk product and value added product with the help of experts panel from R&D organizations.

C. Coir Cluster Development

Coir cluster is the most important sector in the coconut growing areas but unfortunately the clusters are still practicing traditional technologies and old looms for processing of fibre. Corporation provided financial support for distributing and installing of four Anupam Looms through CCRI, Alleppey. These looms have a basic advantage of high productivity and higher efficacy as compared to the traditional looms.

Social Responsibility Of Business Enterprise

Apart from transfer of eco-friendly technologies to the industry, vigorous efforts are being made to meet the Social Responsibility of the Corporation. With a view to take a step in this direction, the following initiatives for Gender Development and Regional Balance Development in the country were undertaken during the year:

A. North-East Initiatives

- **Provided 500 solar lantern to Mizoram Intodelhna program for distribution to villagers in Mizoram** - To propagate new technology in the North-East and looking at the problem faced by the farmers of Mizoram during night, the

Corporation distributed 500 solar lantern in the various villages of Mizoram. The solar lantern were appreciated by the villagers and used by their children for study at night also.

- **Awareness-cum-motivational program on driving for self-employment at Imphal, Itanagar and Agartala** - In order to accelerate the growth of industrialization in North-Eastern States and develop entrepreneurship among youth, the Corporation conducted three awareness program at Manipur, Arunachal Pradesh and Tripura. The programs were attended by about 100 youths in each state and they were informed about the various schemes of State and Central Government for encouraging entrepreneurship.
- **Solar drying of turmeric at Mizoram** - A major initiative has been taken by the Corporation in Mizoram to set up a project for the processing of turmeric through green technology. As a part of the project, the Corporation supplied and installed 6 modules of solar driers for drying turmeric in Mizoram. The funds for this project were provided by Ministry of New & Renewable Energy (MNRE) through Zoram Energy Development Agency (ZEDA), Mizoram.
- **EDP in food processing at Shillong** - North-Eastern Region is rich in production of large number of horticulture products which provide tremendous potential for growth of food processing sector. A six-week training program was conducted at Shillong on fruits/vegetable processing. Twenty five youths attended the program and some of them have set up cottage level manufacturing facilities for making juices, pickles, etc.
- **Need for technology & its assessment for economic resurgence of North-Eastern States** - This study was commissioned by the Corporation and the work was awarded to Indian Council of Small Industries, Kolkata. The study has been completed and the report is under implementation.

Women Entrepreneurship Development Program (Gender Development)

Promoting entrepreneurship amongst college students

Women Entrepreneurship Development Program is being carried out by the Corporation to promote, inspire and encourage women to take up entrepreneurship. During the program, information is disseminated on appropriate technologies through various sensitisation programs,

lectures, seminars, workshops conducted at various locations. These programs provide project based information like guidelines for preparing project report/feasibility; information on appropriate technologies, schemes available with financial institutions/government for women and success stories. Fourteen such programs for promotion of entrepreneurship amongst women at Southern States were conducted at various universities. Some of them are Bharathiar University, Coimbatore, Avinashilingam University for Women, Coimbatore, Bharathidasan University, Tiruchirappalli, Algappa University, Karaikudi, Mother Teresa Women's University, Kodaikanal, Gandhigram Rural University, Periyar Maniyammai University, Gandhigram, RTM Nagpur University, Nagpur, Andhra University, Visakhapatnam, Manonmaniam Sundaranar University, Tirunelveli, MOP Vaishnav College for Women, Chennai, S.P. Mahila Visvavidyalaya, Tirupati. The response was overwhelming.

Sericulture for women

The Corporation has initiated a program for mass production of bio control agents with M/s. Kaveri Mahila Reshme, Belegaranra Gunatmaka Sangha, Bommanadoddi Village, Maddur Taluk, Mandya district which is self help group of rural women. The program involved training in the techniques of production and release of *Nesolynx thymus* and *Scymnus coccivora* to control insects. The program is continued by NGO which has resulted reduction of pest incidence and crop loss to sericulturists.

Technology awareness program in coir fibre processing for the benefit of women worker

During the extraction of process of husk from coconut, defibering machines are used. The fibre is found to be harsh in feel and has to pass through the fingers of women workers. But the new process developed 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 and texture and with zero effluent. The Corporation has released Rs. 12.25 lakhs to Central Coir Research Institute, Alleppey, Kerala for distribution of 35 number of spraying equipment and willowing machines and technology for coir fibre processing to women workers in Kerala.

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. Some of the new institutions tied up during 08-09 are Rural Innovation Network Foundation - Chennai, Centre for

Research for Goats - Mathura, Tamilnadu Agricultural University, Jawaharlal Nehru Technological University – Anantpur etc.

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 2008-09, IPR related seminars were held at Chennai, Bhubaneswar, Shillong, Dehradun, Varanasi, Delhi, Hyderabad, Patna, Palampur, Ahmedabad, Kolkota, Mysore, Almora, Hyderabad, Haridwar, Tejpur, Hissar, Faizpur, Jalgoan, Gwalior, Kollam, Kochi, Pant Nagar, Jaipur. 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

Corporation publishes two magazines Invention Intelligence (English) and Awiskar (Hindi) to spread awareness on appropriate technologies. These magazines spread scientific awareness on latest inventions and new technologies in India. During the year, the Corporation has also brought out the following special publications Docket on Biotechnology, Booklet on Green Technologies, Docket on Green Technologies for Sustainable Agriculture, Souvenir on Leveraging Innovations & Inventions: Enhancing Competitiveness, NRDC–Your Technology Partner, Docket on Animal Technologies.

Innovate India

For leveraging innovations and Inventions, Corporation organized a two days seminar during 2008-09 to highlight global innovation chain and impact of this global chain on revenue generation. It has been felt that innovation must be embedded into the very fabric of the institution as innovations provides one of the source for sustainable competitive advantage and enduring success in today's world.