II - D. INTERNATIONAL TECHNOLOGY TRANSFER PROGRAMME

1. PREAMBLE

International Technology Transfer Programme (ITTP) has its genesis in Transfer and Trading in Technology (TATT) scheme, which was formulated in the Seventh Five Year Plan and continued till the Ninth Five Year Plan. ITTP has consolidated various technology export promotion activities of the earlier scheme and aims at encouraging and supporting Indian industry for greater participation in international technology trade.

2. OBJECTIVES

The main objective of International Technology Transfer Programme (ITTP) is to promote international technology transfer and trade with India as the focus. The detailed objectives of the programme are the following:

- To compile information on exportable technologies and technology intensive projects, products & services available with Indian industry and R&D establishments;
- To create awareness about our technology export capabilities among potential foreign buyers or collaborators;
- To support capability building of industries and R&D establishments for technology intensive exports;
- To support research and analytical studies aimed at providing inputs to the government for technology export related policy formulation;
- To promote and support Institutional Mechanisms for catalyzing international technology transfer and trade; and
- To facilitate signing of MoUs / Agreements on High Technology Cooperation and Trade between Indian and foreign industrial units.

3. PROJECTS/ACTIVITIES

Details of important projects/activities that were completed or were in progress during the year under report are given below:

3.1 INDIATECH 2006 (10th Technology Trade Pavilion) at India International Trade Fair, New Delhi, November 14-27, 2006

The objective of the Technology Trade Pavilion is to promote display and dissemination of information relating to technological capabilities, high value added products and technologies of companies and organisations including R&D laboratories, academic institutions, product design institutions, consultants etc. The Technology Trade Pavilion 2006 was setup jointly by Department of Scientific and Industrial Research (DSIR) and India Trade Promotion Organisation (ITPO) for the tenth time in succession since 1997. The space in the Technology Trade Pavilion was offered free (cost shared equally by DSIR & ITPO) to the R&D laboratories/institutions and other small and medium scale enterprises engaged in technology related business.

Around 40 organisations, both from public and private sectors including national R&D laboratories participated in the 10th Technology Trade Pavilion. These included SSP (P) Ltd., Mecpro, SS Foundry, Gabsons Engineers, Laggar Industries, Coral Industries, HEG Ltd., CSIR Labs, CII, NRDC, CEL, CDC, etc. The participating

organisations in the Pavilion displayed their technological capabilities through models, prototypes, interactive computer based displays, charts, machinery/product samples, etc. Technology Innovation Awards were bagged by SSP Ltd. (Gold), Foundation for Innovation and Technology Transfer (Silver) and HEG Ltd. (Bronze). Best Display Awards were bagged by NRDC (Gold), Spring Fresh Water Treatment Ltd. (Silver) and CI Network Technologies Pvt. Ltd. (Bronze).

The 10th Technology Trade Pavilion helped in promoting one-to-one interactions and business negotiations between the participating organisations displaying their technology intensive products, technologies, machinery, services, etc. and potential customers of Indian technology and services. These interactions, including interaction between R&D organisations and industry, generated many business enquires, besides creating awareness about India's technological capabilities.

A concurrent seminar on Promoting Technology Partnerships was also organized on 23rd November, 2006 at Pragati Maidan. The seminar was attended by around 50 participants. Speakers in the seminar were from APCTT, IIFT, TEDO, NRDC, FITT and SSP Ltd.

3.2 Hannover Fair, April 24-28, 2006

India was invited to be the partner country at the Hannover Messe 2006. Hannover Messe was spread over more than 200,000 sq. mtrs. of exhibition space and attracted over 6000 exhibitors from 65 countries and more than 200,000 trade visitors. India was allotted a space of 9873 sq. mtrs. in the Hannover Messe and Engineering Export Promotion Council coordinated India's participation at the fair. 315 Indian organizations and entrepreneurs showcased the advancement of Indian Technology in the fair. Major giants included SAIL, ONGC, EIL, NHPC, IOCL, HAL, ISRO, BEML, HMT etc. A Theme Pavilion showcased the strengths of the Indian industry in sectors like engineering, automotive, biotechnology, pharmaceuticals, information technology, space and energy. By the end of the exhibition, joint venture agreements to the tune of US$ 1.3 billion were signed between Kingfisher and Airbus, Deutsche Bahn and Indian Railways, Mann AG and Force Motors and Helm Hotz and ICMR besides business enquiries generated worth millions of dollars. A number of important business summits and seminars were also organized on the sidelines of the fair. DSIR promoted the participation of eight organizations in Hannover Fair. The organizations supported were: Sankar Group of Companies, Chennai, Coral Telecom Ltd., Noida, Siddhi Engineers, Ahmedabad, NML, Jamshedpur, NRDC, CEL and Technology Export Development Organization (TEDO) (joint initiative of DSIR & CII). Companies that participated under TEDO were Abhikalp Design Studio, New India Electricals and Pricol Ltd.

3.3 Technology Export Development Organisation

The main objective of the Technology Export Development Organisation (TEDO) - a cell jointly setup jointly by DSIR and CII is to promote and support technology and technology intensive exports through collaborative efforts of government, industry, research & academic institutions, financial institutions and other export promotion agencies. In the second phase during 2005-07, TEDO is focusing on capability building and export promotion of around 40 companies in the process plant and machinery sector and the tooling sectors. Profiles of these companies, highlighting their exportable technologies, projects and hi-tech products

were prepared. Unit level assessments of companies in the tooling sector have been carried out. TEDO organized training programmes on Effective Trade Fair Participation in association with CBI, Netherlands in Delhi and Mumbai in September, 2006. TEDO also prepared a draft on "Centre for Global Business Competence" in association with CBI, Netherlands with a view to train consultants who can in turn help our industries in export to Europe and the world. TEDO participated in the Hannover Fair, 2006 and Achema Fair in Germany in May, 2006 and Euromould Exhibition in Germany in November, 2006. The TEDO website has been re-designed and a virtual exhibition has been hosted on the website.

3.4 Centre for International Trade in Technology

The main objectives of the Centre for International Trade in Technology (CITT) in IIFT, New Delhi are: to sensitize policy makers regarding the importance of technology trade and the need for establishing an enabling and proactive policy regime; to support the corporate sector by providing information regarding relevant global commercial opportunities and market potential in priority markets; and to develop a cadre of experts and trainers to provide specialized training to the industry and policy makers. A study on "Foreign R&D Centres in India" was completed during the year. The study contains data of 37 foreign R&D centers of 33 companies in sectors viz. agriculture, automobiles, biotechnology, pharmaceuticals, chemicals and computer hardware and software. The main objectives of the R&D centers are to support the R&D and manufacturing activities of the parent organization and carry out contract research for organizations in India and abroad. A study on "Survival of Start–ups" has also been completed in which data from around 40 start-up companies in sectors such as IT, pharmaceuticals, biotechnology and auto-components have been collected. Another study on exportable R&D services from the ICMR system was in progress.

3.5 Promoting High Technology Cooperation and Trade between India and CIS Countries

The objectives of the project are: to identify specific Indian suppliers of technologies, projects and high tech products; to identify specific collaborating agencies and business partners in the CIS region; and to facilitate one-to-one interaction, signing of MoUs, etc. The target countries are Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine, Azerbaijan, Russian Federation, Belarus, Armenia, Moldova and Georgia. The project is being funded jointly by DSIR and Department of Commerce under their Focus CIS Programme and MAI scheme. During the year, the consultant (MITCON) prepared the profiles of technology suppliers from India and also the likely collaborators from the CIS side. Under the project, it is planned to sign at least 6 MoUs between Indian and CIS parties on technology related projects.

3.6 Technology Trade Facilitation Centre at National Research Development Corporation (NRDC)

A Technology Trade Facilitation Centre was setup at NRDC in July 2003 with the support of DSIR. The Centre is a proactive approach to catalyze technology intensive and high value added exports from Indian industry/R&D establishments and is expected to provide an exposure to small & medium enterprises (willing to export their high tech products and processes) to look at international customers and foreign market

requirements. The following criteria is used for selection of companies:

- Any company that is manufacturing a hi-tech product / equipment / machinery which is being exported or has export potential.
- Any company that has commercialized a technology and is willing to license / transfer it, within the country or abroad.
- Any organisation, which can offer a complete technology package or a technology project on a turnkey basis.

The Centre participated in 7th SAARC Trade Fair held at Karachi in June, 2006, Rwanda International Trade Fair during Aug-Sep, 2006, Australian Field Days Exhibition during October, 2006 and Technology Trade Pavilion in India International Trade Fair during November, 2006. Four new companies were made members of TTFC during the year. Visitors from African Countries visited the Centre and made enquiries about the technologies of TTFC exhibitors. These enquiries related to steel melting, aloe-vera cultivation, brick making machinery, pollution control equipment, paper recycling and palm oil refinery.

3.7 Design Clinics – cum - Awareness Programmes – NID

The objectives of the Programmes were: to develop understanding of the design process in SMEs so as to enable them to utilize design as a strategic business tool; to enable participants to evolve their own strategies for undertaking industrial design activities; and to provide necessary design support for product design and development so as to enable SMEs to face the challenges of the fiercely competitive markets. The methodology followed was a 5-day Programme, conducted in two phases. During Phase I (first 3 days), the participants were exposed to 'Design Basics' and 'Case Studies' through seminars/lectures, presentations by NID faculty and practising professional designers. At the end of Phase I, the participants returned to their work place to put into practice the learnings from Phase I. During Phase II (last 2 days after 2 weeks break), the participants presented their findings and discussed their specific design solutions and problems. They were guided by NID faculty and professional designers for integrating design into their operations.

NID, Ahmedabad organized a Clinic-cum-Awareness Programme for Design Intervention in Furniture Cluster at Delhi during the year. The programme was attended by 30 participants from industry.

3.8 Third International Orientation Programme on Packaging Technologies and Machinery for Food Processing Sector

The main objectives of this programme are: to share and exchange information on the packaging technologies and related machinery in food processing sector in use in the participating countries; to promote and catalyze the extensive use of these technologies and machinery for mutual benefit; and to evolve collaborative R&D and technology related projects, joint ventures etc. in the area of packaging technology in food processing sector. The programme, scheduled in February, 2007 would invite international and national participants and pave the way for export of packaging machinery in the food processing sector from India.

3.9 Compendium on Technology Exports – An Illustrative Compilation of Exported and Exportable Technologies from India

The annual compendium brought out in collaboration with Indian Institute of Foreign

Trade (IIFT), New Delhi, contains information on technologies actually exported as well as technologies having potential for exports. The compendium analyzes the data on technology exports and exportable technologies and highlights export trends in terms of sectors, destinations etc. The compendium is a compilation of profiles with each profile/containing details such as basic company information, details of exportable technologies available with the company, preferred mode of technology transfer, preferred export destinations etc. There is a separate section giving details of technologies actually exported. The compendium serves as a ready source of reference to foreign customers who are looking for technology business partners from India. The target audience for the compendium includes foreign embassies / missions in India, Indian embassies / missions abroad, foreign business delegations visiting India, Indian delegations going abroad, exporting organisations and consultancy companies.

The current phase of the project envisages to bring out three issues of the compendium over a three-year period, after six issues covering data for period 1994 to 2002 were brought out in the earlier phase. The publication containing data for 5 years i.e. 2000-01 to 2004-05 was brought out during the year. A searchable web-enabled database was also brought out.

3.10 Newsletter on Technology Exports

The newsletter on technology exports was revived during the year and made into a bi-monthly publication. The first three issues brought out were for the period May-June 2006, July-August 2006 and September-October 2006. Subsequent issues were being brought out. As a new feature, lecture series on successful export strategies of young technology companies was started, which was appropriately featured in the newsletter. The newsletter also featured a review article on some interesting news item concerning technology exports. Further, select list of exportable technologies/projects offered by Indian SMEs were also covered in the newsletter.

3.11 Profiles of Exportable Technologies from SMEs – State-wise

The objective of the project is to compile information on exportable technologies and projects from SMEs and disseminate it through Internet, documentation, conferences, etc. with a view to enhance international technology trade. The compilation of profiles of exportable technologies and projects from SMEs in the State of Maharashtra has been completed through MITCON Consultancy Services Ltd., Pune and the exercise in respect of Delhi and NCR has been completed through M/s NAFEN, New Delhi in the past. Projects on compilation of Exportable Technologies from SMEs in Andhra Pradesh & Karnataka (through APITCO), Punjab, Haryana, HP & J&K (through NAFEN) and Tamil Nadu & Kerala (through Pixel Networks) were completed during the year. About 225 profiles and exportable projects from SMEs in these regions were compiled. Projects in respect of West Bengal & North Eastern States (through WEBCON), Gujarat & Rajasthan (through GITCO), UP, Uttaranchal, Bihar and Jharkhand (through Sycom Consultants) and Madhya Pradesh, Chattisgarh and Orissa (through MPCON) were in progress during the year. A comprehensive web enabled searchable database of profiles was also being prepared under the project. This would be disseminated to foreign embassies, Indian missions and other international trade bodies.