

V(C). TRANSFER AND TRADING IN TECHNOLOGY (TATT)

1. OBJECTIVES:

The TATT scheme mainly aims to promote and support activities towards the export of technologies, projects and services. The measures adopted include:

- Support to preparation of technology profiles of developing countries;
- Support to preparation of reports related to technology export capabilities and experiences in select industrial sectors;
- Publicity and dissemination of Indian capabilities through workshops, trade fairs, delegations and video films;
- Supporting demonstration of exportable technologies overseas as well as within India;
- Supporting Small and Medium Enterprises (SMEs) for value addition and export production;
- Facilitating linkages between R&D institutions and industry in hi-tech areas for technology exports.

2. ACTIVITIES:

The TATT scheme became operational during the year 1986-87 through a cell set-up in DSIR for this purpose. A number of programmes and projects aimed towards its objectives were completed during the 7th Five Year Plan. A re-organisation of schemes took place at the beginning of 8th Five Year Plan, when TATT scheme became a part of SEETOT programme and the Technical Advisory Committee was reconstituted. The thrust of the projects during 1985-1992 has been towards documenting our technological expertise and capabilities, preparation of technology profiles of select developing countries, and enhancing export efforts in the area of technology transfer through seminars/workshops, and video films. The focus during the 8th five year plan has been generally towards commercialisation of exportable technologies through setting up demonstration plants and export market development. Other activities undertaken related to compilation of data on technology exports and promotion of export of technology intensive services. Technical Advisory Committee was reconstituted during 1997-98 and fresh proposals for support under the scheme were considered during the Technology Advisory Committee meetings. Details of some of the projects/activities completed or in progress during the year under report are given below:

2.1 COMPENDIUM ON TECHNOLOGY EXPORTS FROM INDIA

The work on bringing out a publication, providing ready information on exports of technologies including exports of turnkey and consultancy projects, consultancy exports and export of capital goods was continued during the year. A publication for 1995-96 was brought out in-house and disseminated to concerned organisations. The work related to bringing out the compendium for the years 1996-97 and 1997-98 was awarded to Indian Institute to Foreign Trade, New Delhi. A number of organisations including companies, export agencies and R&D institutions were contacted by IIFT for soliciting information on exports of technologies and services during 1996-97 and 1997-98. The information obtained was being compiled for bringing out the Compendium.

2.2 A STUDY ON CAPABILITIES FOR EXPORT OF NON-CONVENTIONAL TECHNOLOGY INTENSIVE CONSULTANCY SERVICES FROM INDIA.

A study on export potential of non-conventional technology intensive consultancy services was carried out through IIFT. The study covers six areas, viz. technical education & training, hospitals and specialised health services, printing services, maintenance services, standardisation and quality assurance services and satellite mapping. A draft report on the study was discussed in a seminar during February 1998, and the study-report was subsequently printed in a book form during the year. The publication highlights our capabilities to provide technology intensive services in six sectors and also includes profiles of service providers in each of the six sectors. It also contains an analysis of the WTO provisions on the general agreement on trade in services and recommends the potential areas where India can take advantage to tap the available opportunities.

2.3 EXPORT MARKET DEVELOPMENT FOR SOLAR PHOTO-VOLTAIC TECHNOLOGY AND SYSTEMS

Support to Central Electronics Ltd., Sahibabad was continued to conduct a market survey in select countries for supply, installation and commissioning of sample Solar Photo-voltaic Systems for demonstration purposes followed by transfer of technology for manufacturing SPV modules and systems. The project covers visits of CEL experts to the target

countries to find out the potential and applications for SPV systems and technology and precise specifications of the equipment required in those countries, preparation of market promotion material such as brochures, pamphlets and video films, manufacturing of sample SPV systems based on the precise specifications, supply and commissioning of SPV systems, training of engineers from the target countries, preparation and handing over of technology transfer documentation etc. The sample SPV systems being supplied include SPV stand alone domestic lighting system, SPV stand alone street lighting system, SPV community room system, SPV system for primary health centre, SPV shallow well water pumping system, SPV deep well water pumping system, SPV lantern and portable manpack SPV battery chargers. The project has helped CEL to generate substantial export earnings to the tune of around Rs. 8 crores during 1996-98 in the form of know-how fees, royalty and sale of SPV modules systems and components. Publicity material such as brochures and video film have been prepared. Sample SPV systems have been supplied in Uganda, Bangladesh, Turkmenistan, Myanmar and few other African countries.

2.4 TASK FORCE FOR "PROMOTING TECHNOLOGY EXPORTS FROM INDIA".

The above task force was constituted in June 1997 with the following terms of reference.

- Examine need and relevance of technology exports and technology intensive exports.
- Drawing Lessons from past experiences in technology exports.
- Review of present policy measures for technology exports in India.
- Strategy for enhancing India's contribution in the global technological markets.
- Recommending Mechanisms and Support Systems for speedy implementation of policies and boosting technology exports.

Based upon interactions with industry representatives during meetings at New Delhi, Bangalore and Mumbai, discussions with other export promotion agencies, meetings of the task force members and guidance of Chairman of the Task Force, Shri N. Vittal, a report of the Task Force for Promoting Technology Exports from India was prepared. The report was presented to the then Hon'ble Minister of Science & Technology Prof. Y.K. Alagh on January 13, 1998.

The report suggests a target of Rs. 800 crores (about 50% per cent of technology payments made by India) for technology exports by the year 2002 as a short term goal and

a target of 2% share of global technology exports as a long term goal.

Follow-up work for implementing the recommendations made in Task Force Report were continued during the year. Proposal to setup an institutional mechanism for promoting technology exports in association with Confederation of Indian Industry was at an advanced stage.

2.5 TECHNOLOGY EXPORTS PAVILION IN THE INDIA INTERNATIONAL TRADE FAIR NOVEMBER, 1998

A pavilion on technology exports was set up at India International Trade Fair November, 1998 in association with India Trade Promotion Organisation. Around 200 sq. mtrs. of floor space was made available in Pragati Maidan to participating companies and R&D Institutions, free of cost, to exhibit their technological capabilities. Twelve companies and organisations participated in the pavilion, which generated fairly good response from the visitors. Some of the companies also received enquiries for supply of technologies and services.

2.6 SEMINAR ON TECHNOLOGIES FROM INDIA

A Seminar on Technologies from India was organised in association with India Trade Promotion Organisation in Pragati Maidan, N. Delhi, on Nov. 25, 1998. The Seminar was organised with a view to disseminate Indian capabilities for export of technologies and technology intensive products and services and to provide a platform for interaction between exporters and potential foreign customers of such technologies and technology intensive products. The seminar covered 3 sectors namely, Drugs & Pharmaceuticals, Chemicals & Petrochemicals and Food Processing & Packaging. It was attended by over 150 delegates, including around 40 foreign diplomats from some 15 developing countries in the SAARC, South East Asian, Middle East and African Region. Important recommendations emerging from the seminar were:

- Similar seminars may be organised more frequently on a variety of subjects of common interest to developing countries.
- The focus should be on promotion of technologies appropriate to the economic and industrial development and social conditions prevalent in the host country.
- Collaborative arrangements may be evolved between different countries to promote technology development and exports for better exploitation of available resources and maximization of benefits.
- India should use its inherent advantage of a large pool of technically qualified manpower to promote

technologies, which employ manpower efficiently, instead of focusing only on technologies based on automation.

- There is need for sustained efforts in building technology and technology intensive products exports. A mechanism may be evolved which would provide technological inputs on a continuous basis to industry, especially small scale industry.
- The technology development efforts should be aimed at development of safer, cleaner and environment friendly technologies.
- The tremendous potential for export of technology for bulk drugs, which will be off-patent by 2002, in the SAARC region may be exploited.

2.7 NEWSLETTER ON TECHNOLOGY EXPORTS

A quarterly Newsletter on Technology Exports was initiated during the year. The Newsletter is being compiled by IIFT under the guidance of Editorial Board, comprising of representatives from DSIR, IIFT, CII, Exim Bank, L&T and Waterfalls Institute of Technology Transfer. Three issues of the Newsletter were brought out starting July 1998. The Newsletter includes a lead article and details on technology export related policies, global technology and India's technology developments, joint-ventures, India's achievements in technology exports, technology offers and requests etc. The Newsletter has been appreciated by industry, embassies/missions and other export promotion councils.

2.8 FEASIBILITY STUDY ON EXPORT POTENTIAL OF INDIAN TECHNICAL KNOW-HOW IN INSTITUTION BUILDING AND MANPOWER TRAINING FOR CONSTRUCTION INDUSTRY IN BANGLADESH AND NEPAL.

The above study was commissioned to NICMAR in April 1998. Two meetings of the Expert Advisory Committee took place to discuss the draft report on Nepal, prepared by NICMAR and also to review the general progress of work in respect of the above project. The report on Nepal has been finalised and work in respect of report on Bangladesh was in progress.

The study on Nepal has clearly brought out the potential for export of Indian know-how in manpower training and institution building in construction industry in Nepal and has outlined 5 main tasks, viz., (i) upgrading the technical capabilities and managerial abilities of executives, (ii) training construction project managers, (iii) augmenting the supply of trained construction engineers and technicians three-fold over next 10 years, (iv) establishing an Operators and Mechanics Training Centre (OMTC) in Nepal, & (v) training local workers in various construction trades.

3. TECHNICAL ADVISORY COMMITTEE

Second meeting of the Technical Advisory Committee for the TAIT and the Consultancy Schemes of DSIR was held during the year. Two project proposals, namely, (i) Codification of Notifications on Technical Barriers to Trade issued by WTO, and (ii) Directory of Exportable Technologies from India, were recommended under the TAIT scheme by the Technical Advisory Committee. The projects were being sanctioned to the concerned agencies.