

1. Introduction

- 1.1 Tyres and tubes, the strategic rubber products and basic supplements to the automotive vehicles are of utmost importance to the country's economy. The tyre industry sector is providing direct employment to over 40,000 people and indirect employment to lakhs of people. This industry sector is now being considered as a core industry sector.
- 1.2 The manufacturing of automobile tyres as an essential ancillary for the development of automobile sector came into being in India during the 1930's when the Dunlop India Ltd., the first tyre manufacturing transnational company started its operation in 1935 at Sahaganj in West Bengal. During the early period the overseas tyre manufacturing companies were having major equity participation in the Indian manufacturing companies. After 1970's there was a change in the policy of Government and it decided not to sanction any foreign equity. The setting up of joint sector projects with multiple foreign collaboration was considered feasible.
- 1.3 At present 11 large companies with 15 factories and 9 medium-scale companies scattered all over India are manufacturing tyres and tubes for automotive vehicles including aerotyres and tyres for defence services. As estimated, their total production during 1987, was 128 lakh tyres against the total installed capacity of 179.44 lakhs tyres.
- 1.4 The interesting feature of the tyre industry in India is that starting from its inception to the present day, its progress has been influenced by repeated import of technical collaborations. There is an urgent need to build up indigenous capabilities for tyre technology including the tyre machinery. In view of this, it was thought desirable to undertake the review of present status of this industry and to identify and analyse the critical inputs required for absorption and upgradation of imported technology.
- 1.5 The DSIR has introduced a scheme "National Register of Foreign Collaborations" which envisage review and analysis of imported technologies in the country and suggest measures for appropriate choice, acquisition and implementation of foreign know-how. The major objectives of this scheme are:-

Undertake financial, economic and legal analysis of set of data on foreign collaborations.

- Carry out a technology analysis of the imported technology and provide a state of the art technology in use in the country and status of implementation of collaboration.
- Provide the basis for a National Science strategy wherever possible.
- In the long run lead to unpackaging of imported technology and in generation of national strength in competitively purchasing only selected components of technology.
- Coordinate with Ministry of Industry, Commerce and Finance etc. by providing technology data input.
- Facilitate more effective national participation with various organisations such as UNCTAD, UNIDO, ESCAP etc. and in the international exchange of information and co-operation with other developing countries.

The present report has been prepared under "National Register of Foreign Collaboration" to review the Tyre Industry in India.

1.6 The In-house R&D units in industry are advantageously placed to absorb and improve upon the imported technology. The technology absorption & adaptation scheme (TAAS) of DSIR seeks to encourage this role by providing these units with optimum inputs for an accelerated absorption and upgradation of imported technology. The scheme was formulated to fill inter-alia, the following specific objectives:

- i) To reduce the necessity to further import of technology even after having it in use over a reasonably long period.
- ii) To upgrade technology imported incorporating improvements identified in the use of technology.
- iii) To promote the diffusion or export of the imported technology which have been assimilated or adapted.
- iv) To strengthen the base for selecting and negotiating appropriate and competitive technology where import of technology is considered desirable.

1.8 The Department of Scientific & Industrial Research (DSIR) organised a workshop on "Technology in Indian Tyre Industry" on 25-11-1987 in

collaboration with Automotive Tyre Manufacturers Association (ATMA). The then Secretary & Director General Technical Development (DGTD) inaugurated the workshop which had participation of various tyre units, concerned organisations and institutions, besides experts from foreign tyre companies and Smithers, USA, a reputed testing/research evaluation organisation. This report has been finalised after the discussion of its draft in the above workshop and has taken into account the various inputs received from the workshop. A summary of proceedings of the workshop is given at Annexure II.