

Title : Compilation and Analysis of Indian Patent Data

Principal Investigator

Implementing Agency : Indian Institute of Technology, Mumbai

Year of Completion :1994

Summary :

- ▶ More than 70% of the patent applications in India are filed by foreigners
- ▶ Out of a total of 40944 patents published in India during the period 1972-73 to 1991-92 three out of every four published patents are held by foreigners and one by Indian
- ▶ A total of 27704 patents published in India originated from various countries of the world during the period 1974-75 to 1991-92. USA alone accounted for about one-third of the total patents held by foreigners in India followed by 13 European countries accounting for about 47.5% and another important country namely Japan accounts for 5.6%
- ▶ Patent holding of many countries has increased substantially only recently i.e. during the five year period 1987-88 to 1991-92.
- ▶ Overall organisationswise distribution of patents published in India show that three out of every four patents come from industry followed by individuals (13.8%), public R&D organisations (5.9%).
- ▶ Two out of every three patents published by Indians in the country come from individuals and private industry each accounting one. Another important contribution is from Govt. funded R&D organisations accounting for about 20% of the total patents published by Indians in the country. Of the total patents published by Scientific Agencies/Departments in the country, CSIR alone accounts for 88.7%.
- ▶ As can be seen, patenting by foreigners is dominated by the private industry to the extent of more than 80-90%.
- ▶ Chemistry, metallurgy, physical and chemical processes, health and food, textiles and papers cover around 35-40% of overall patenting activity in India followed by about 16% in the area of physics and electricity. 14-18% in mechanical engineering and remaining 25% in other fields.
- ▶ As regards patents published by Indians in the country, nearly 40% relate to chemical industry followed by electrical equipments (7%) drugs and pharmaceuticals (6.8%) soaps, cosmetics and toilet preparations (5.8%), cement and gypsum products (5%), transportation (3.7%), industrial machinery (3.3%) and metallurgical & textiles industry (2.6% each), Contribution relating to other industries is less than 2%.
- ▶ Chemical industry, occupies the major share in the contribution coming from the foreigners (31%) followed by electrical equipments (10.9%), industrial machinery (10.2%), metallurgical industry (7%), transportation (6.7%), textiles (4.5%) and dye stuffs (2.8%).
- ▶ Top 12 patentees in the country in the order of Ranking include CSIR at the first position followed by Hoechst AG, Siemens AG, Hindustan Lever Ltd. Union Carbide Corp., Bayer AG, ICI, Westinghouse Brake and Signal Co. Ltd., Lucas Ind. Pub. Ltd. Co., Shell Int. Res. Maatschappij BV, Pfizer INC. and Westinghouse Electric Corp.
- ▶ More than 30% of the published patents by Indians in the country originate from Maharashtra, followed by Delhi (25.8%) West Bengal (15.9%), Karnataka (5.2%), Tamil Nadu (4.7%), Uttar Pradesh (2.5%), Kerala (2.1%) while other states account for less than 2%.

Recommendations :

1. This is for the first time in India that a comprehensive and detailed study and analysis has been attempted based on the bibliographic information contained in the Indian patents for the last 20 years. The analysis made in this study highlights the potential use of bibliographic information on patents for technology analysis, R&D management, patent watch and patent portfolio management.
2. The information contained in this report will be useful particularly to the scientists, R&D managers and those vested with the responsibilities of making policy decisions. It would, therefore, be appropriate if the information is incorporated in the Handbook on

R&D Statistics published by the Department of Science and Technology for wider dissemination.

3. Since all the patents published under the Patents Act, 70 have been covered in the analysis, it would be appropriate to update this information every year. For this purpose, it is suggested that the Project may be taken up on a continuing basis and the information on this aspect can become a regular feature in the DST publication titled "Handbook on R&D Statistics".

The following tables were proposed for the study:

- A Total number of Indian & foreigner patents published year-wise since 1972.
- B Distribution of patents published in various fields of S&T such as physical sciences, chemical sciences etc. year-wise.
- C Patents classified by major sectors such as Industry (Public and private sectors), Universities, IITs, Central Govt. and State Govt., etc.
- D Industry-wise classification of patents published by Indians and foreigners as per DGTD classification.
- E Distribution of published patents by major scientific agencies/departments in the country. (e.g.CSUR, DRDO, DBT, ICAR etc.).
- F Distribution of Patents Published by Public Sector Undertakings.
- G Ranking of applications for patents according to number of patents published.
- H Patenting activity by selected individuals
- I List of industries/institutions/selected individuals taken patents yearwise: this will however, be limited to those patentees who have taken a minimum of five patents during the specified period.
- J Statewise distribution of published patents for the year 1991-92

During the course of the study, it was found appropriate to include more Tables and illustrations on various aspects to make the reading and interpretation of results coherent and objective. Accordingly, this report contains 35 Tables, 16 figures apart from several tabulated results present as a part of the write-up. All the Patent Tables have been given separately and a list of abbreviations has been included at the end of the report. It may be noted that the number of patents published in a year may fluctuate substantially depending upon the rate of clearance of the areas by the Patent Office and it is for this reason that we have analysed the average rate of patenting based on published patents over a period of 5 years or more in order to give the actual trends. Other limitations wherever, present, have been explained at appropriate places.