Chapter - V

TECHNICAL RELATIONS

1. Technical Cooperation with FRG

Capital alone is necessary, but not a sufficient condition of development. Financial aid must be supplemented by technical assistance in order to create the skills and attitudes required for building a modern industrial society. West Germany technical assistance to India is given by way of grants. It has been concentrated on four sectors: technical education, agriculture, mass communication, and promotion of export and tourism.

1. Technical Education

Assistance to India in technical education sector is provided in two forms: Indians go for study and training at German universities and Institutes of Technology or to get vocational training in German firms. On the other hand Germany has been helping Indian Government to set up institutes for technical education. Thus by sending teachers and providing equipment, Germany contributed to establish the Indian Institute of Technology, Madras, into one of Asia’s

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premier technological institutes. For the purpose of meeting the need for practical training, Germany furthermore cooperated with India in establishing institutions like the prototype Production-training Centre, while in Delhi (which is attached to the National Small Scale Industries Corporation), the Institute of Engineering, Faridabad (Haryana), the master training institute, Bangalore, and the Central staff training and vocational Research Institute in Howrah. German experts are also engaged in a task of utmost importance doing the preparatory work for systematising and standardising vocational education in India. 2

I.I.T. Madras

The institute was established by the Government of India in collaboration with the Government of the Federal Republic of Germany and was inaugurated on July 31, 1959. By an Act of Parliament and with effect from April 1962, it has been declared to be an "institution of national importance". It is a residential institution and is of a non-affiliating type. It has its own campus of about 650 acres.

ii. Agriculture

It was recognised that besides the maintenance of stability by increasing food and fibre supplies, a sound agricultural base is necessary for building up and industrial edifice on which depends the material and cultural advancement of the country. 3

In the field of agriculture, Germany at present is assisting the development programmes in the hill districts of Mandi Kangra (Himachal Pradesh), of Nilgiris (Tamil Nadu) and Almora (Uttar Pradesh). Mandi Kangra, the first Indo-German agricultural project founded in 1962, has since won nation-wide reputation, and farmers from all over the country have been visiting the place to study modern methods in agriculture, horticulture, animal husbandry, dairy, poultry, and storage and marketing of agricultural produce. Mandi in 1963 was a food deficit district. Within a few years it has been transformed into a surplus area. Food grain production has doubled, fruit production gone up by almost 1400 percent.

The expansion of fruit and vegetable cultivation, which has been achieved in Mandi during the past few years, has also been considerable. Thus the area covered by fruit cultivation rose from 442 acres in the year 1962-63 to some 2000 acres in the year 1965-66. Furthermore, there has been a marked rise in the production of vegetables, for before the project it had not been possible to cover local requirements. It appears that the German development aid system has a stimulating effect as well. In this sector and also in the growing were of potatoes, where successful experiments were carried out using

German types of seed potato, it proved to be a great advantage that the crops involved were of the kind with which the Germans had had ample experience. 5

The Indo-German agricultural development project was first introduced in Mandi district in 1962. For another project in Nilgiris (Tamil Nadu), the agreement was signed between India and West Germany in June 1966. The project for Almora District in Uttar Pradesh has its origin in an Indo-German FAO fertilizers supply project, under which about 1000 tonnes of fertilizers were made available in December 1967. 6

iii. **Mass Communication**

The third field of German technical assistance to India is television. Television is potentially the most important mass communication medium for educating the rural people of India, for modernising their attitudes and winning them over to family planning and the application of new farming techniques. It can also be used for educational purposes in schools and colleges. Television, in short, can play a crucial role in the process of India's development towards a modern industrial society. India established her first television studio in

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5. Ottoshiller: "Farm Aid" in *Commerce*, vol. 118, No. 3034, Bombay, June 28, 1969, p. 64.
New Delhi in 1965, Germany gave as a gift the entire transmission equipment and attached German technical advisors to the studio. After the success of Delhi project, a new agreement was signed between India and Germany on October 29, 1969 which provides for setting up a second television station in Bombay with relay facilities in Poona. A German expert team, furthermore, have trained the Indian staff in programme presentation techniques.7

The entire foreign exchange cost of the project would thus be met by the West German Government, which has offered the TV equipment as a gift. The counterpart expenditure in rupees would be incurred by the Government of India. The cost of equipment to be received by way of gift was Rs.11.30 million. The transmitter at Poona will not be an independent TV station but will relay programmes originated at Bombay. For this purpose a micro-wave link between Bombay and Poona, being set up by the Department of Communication, have used. The transmitter at Poona is thus being planned as a part of the technical configuration of the Bombay station. The station at Bombay would serve the whole of Greater Bombay, its industrial environs and some rural areas of Thana and Colaba districts.

7. Konard, op.cit, p.66.
The relay transmitter at Poona would serve the city of Poona, its industrial environs and rural areas around. The total areas round Bombay and Poona to be served by this complex is likely to be about 10,000 square kilometers.8

iv. Promotion of Export and Tourism

The latest projects of German technical assistance, finally are those which are designed to help India earn foreign exchange. The Indo-German Engineering Export Promotion Project aims at expanding India's engineering export to Germany. A second project serves the purpose of furthering tourism to India. The export promotion project has entered its second phase. During the first phase, emphasis lay on making Indian firms acquainted with the requirements of the German market for engineering goods and on training Indian personnel in export promotion techniques. In the second phase, establishing of contracts between Indian exporters and German importers and bringing about the conclusion of export contracts would move into the centre.9

India and west Germany agreed on April 16, 1957 to give all possible facilities, consistent with their import and

8. The Times of India, New Delhi, October 30, 1969.
export regulations, to enlarge the scope of trade and to promote commercial contacts between the two countries. This was announced at the conclusion of the two week talks between the officials of West German delegation and representatives of the Government of India.

In the field of technical assistance, the two Governments have strived to strengthen their cooperation and West Germany had given assistance for and advised on India's economic development. In this context a group of Indian exporters and industrialists visited West Germany to study market conditions with a view to establishing close links with German importers. 10

An Indian trade delegation led by the Director General of Foreign Trade Mr. B. Lal, negotiated an agreement in Bonn on October 30, 1959 providing for the setting up of a commission to examine the possibilities of increasing Indian export to West Germany. The proposed commission would work in New Delhi and Bonn alternately. 11

The two countries signed a protocol in New Delhi on December 14, 1967 to provide West German assistance to set up export of Indian engineering goods to West German Markets.

The agreement was scheduled to operate for a period of two years and was expected to cost about Rs. 400 million to be shared between the two Governments. They also agreed that there was need to strengthen and extend cooperation between the two countries in the economic, industrial and commercial fields on March 20, 1969. A technical aid profit for the promotion of tourism in India, and promotion of Indian engineering export was decided to be considered by West Germany.  

v. Indo-German Collaboration in Industry:

Indo-German Cooperation in the industrial sphere goes back to pre-war days, the setting up of the steel plant at Rourkela which is now one of the most advanced steel mills in Asia, marks the beginning of the active interest of German industry in India's development. In the mid fifties when the Rourkela project was under negotiation, the Federal Republic of Germany had completed a substantial portion of its post-war reconstruction and had made a spectacular economic recovery. West German industries were consequently, looking forward to re-establishing themselves in the export market of the world. The establishment of the Rourkela steel plant afforded them

such an opportunity. With the sanctioning of assistance of the magnitude of DM 660 million by the Government of the Federal Republic of Germany to the Indian Government, the big six of German heavy industries-Krupps, Demag, AEG, Siemens, GHH and Mannesmann-joined together with several other concerns to build the Rourkela plant. This marked the post-war entry of West German industry in the Indian economy.  

German aided Rourkela was the first steel plant to be set up in the public sector, but that is not its only distinction. A greater distinction is that it is the most modern steel plant in India incorporating the most advance technology of steel-making called the L D process. It was described by Jawaharlal Nehru as "the symbol of New India". It is, at the same time the symbol of Indo-German partnership for progress. Rourkela absorbed about 25% of Germany's capital aid to India.

The Indian Government founded a "private" firm, the Hindustan Steel(Private) Ltd. of Ranchi on February 19, 1954 to act as the consortium's partner. Gradually, Hindustan Steel grew into the All India steel works of the "public sector". Having found cooperation between the German and Indian partners exemplary, later on the Indian Government increased the scope

15. Prakash, Om, 'Industrial Policy' in Tandon, op.cit., p.150.
of Hindustan Steel's operations since contracts had meanwhile been signed with the Soviet for a steel mill in Bihari (February 2, 1955) and with Britain in Durgapur (October 31, 1956). In March 1957, Hindustan Steel Ltd. dropped the word private from its name.\textsuperscript{16}

The agreement was signed for Rourkela Steel Plant on August 15, 1953 in Bonn between the Indian Government and of a combine of big six heavy German industries. In Rourkela where work had proceeded smoothly, the first furnace began operating on February 3, 1959. The Indian Minister for production (Mr. K.C. Reddy), giving details of the agreement on August 24, 1953, said that India had contacted interested parties in the U.S., Britain and Japan in the past few years in connection with the new steel plant, and that the final contract with the German firms was the best which India could have secured.\textsuperscript{17}

German Industrial enterprises have concluded several other contracts with the Indian partners, among them one between Tata engineering and locomotive company (TELCO) and Daimler Benz of Germany for the production Mercedes - Benz motor lorries in India on March 2, 1954. The two Governments

\textsuperscript{16} Leifer, Walter: India and The Germans, p. 263.

\textsuperscript{17} Ibid., p. 264.
were pleased to endorse the deal and today diesel trucks from the Tata Mercedes works in Jamshedpur are a familiar sight along India's road. Another contract was signed in New Delhi on August 6, 1954 that charged the German firms of Barenst and Wunze with the construction of the Banhal rail and road tunnel. In the Jabalpur and Kanpur regions, engineers of the MAN Machine works have been active since 1958.\(^{18}\)

The other projects supported by German financial assistance include the Bokhala Fertilizer plant (capacity 50,000 tons of Calcium ammonium nitrate), the Neyveli Lignite Mines Briquetting plant and fertilizer plant (6 million tons of Lignite; 3,80,000 tons carbonized briquettes and 152,000 tons of urea), the Mysore Iron and Steel works Shadravati (77,000 tons of alloys and special steels), the Kalinga Iron works (100,000 tons of pig iron), and the Government Electric Factory, Bangalore (transformers, switchgears, motors etc.).\(^{19}\)

There are many other companies whose very names express their Indo-German partnership, like Sindhu-Hochtief which constructed the port of Kandla; Bajaj Tempo Ltd, founded in

19. Konard, \textit{op.cit.} p. 84.
1956, in Bombay, Manufactures of light commercial vehicle. The factory is situated near Poona and is licenced to manufacture 12,000 three wheelers/four wheelers per annum, and in addition to, 6000 Diesel engine per annum. Fritz Wenner (private)Ltd., makers of machine tools; Hindustan Dowidat Tools Ltd., Bayer(India) Ltd., incorporated in 1958 at Bombay as a private Ltd. Company in the name of Bayer Agro.Chem.(P) Ltd., converted into a public Ltd. Company in 1960 and was changed to the present name in May 1963; Hoechst Dyes and Chemicals registered in 1958 at Bombay; Sarabhai Merck Ltd., registered in 1958 in Ahmadabad, suppliers of chemicals. Others are Tata Didier Refractories Ltd., and Goetze India Ltd. Indo-German partnership has proved successful from the Bhakra Nangal Dam to the Konya Dam, from the Kandla to the docks of Visakhapatnam. 20

As already noted delegation of West German industrialist and bankers visited India in January 1970, while expressing satisfaction over the achievements of this country in the field of industry. The delegation advised improvements in the field of quality, delivery schedules and prices which must come up to the world market standards as those steps were likely to accelerate the pace of development. In the following fields the delegation supported India's case:

1. Increased West German investment and flow of technical know-how to India;
2. Setting up of joint ventures in Third countries;
3. Promoting a study to reduce the gap in the trade balance;
4. Promoting of Indian exports to West Germany.
5. Setting up of ancillaries in India.

With approximately 450 joint ventures in India, West Germany ranks third after U.K. and U.S. total private West German investment amounts to Rs. 600 million including portfolio investment, net investment comes to about Rs. 300 million. West German industry in India is mainly active in three fields which also indicates the pattern of future investment: steel and heavy engineering, electrical goods and electronics, chemical and pharmaceutical industries. It seems that the majority of Indo-German joint ventures by 1970 have overcome the recent recession and are doing fairly well the most important collaborations are:

1. Siemens India (Bombay) who produce electric motors, transformers, switchgears, cables and electro medical equipment in collaboration with Siemens AG, Germany's largest manufactures of electrical goods with 260,000 employees and a turnover of 10,000 million DM (Rs. 2,000 million), Siemens India in the year

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1970 achieved a turnover of well over Rs. 200 million. It has a staff of 4000 out of which only 20% were Germans which proves its international orientation. Siemens India have made considerable headway, with the assistance of the German group, in exporting cables, motor and switchgear to Germany and to other European and Asian countries.  

2. B.A.F. India (Bombay) A Multinational Organisation

The B.A.F. Group occupied a prominent position in the international Chemical business. It is one of the ten largest Chemical companies in the world. Based on a range of over 5000 products, group sales in 1966 exceeded DM 5500 million. More than half of this business is done in 136 countries outside Germany. Apart from B.A.F. AG; the parent organisation with its vast industrial complex in Ludwigshafen, the B.A.F. Group comprises a large number of subsidiary and associated companies throughout the world. B.A.F.'s activity in India entered a new phase in 1960, when the B.A.F. Group acquired a 50% interest in K.A. Cole, Ltd., whose name was later changed to Indoplast Limited. In 1967, the share capital was increased from Rs. 2 million to Rs. 7 million, and at the same time the company became a public concern. In the same year the company changed its name to B.A.F. India Limited.

22. Ibid. p.142 and Commerce, op.cit, p.51.
During the 1969 company was manufacturing three types of chemical products, namely, styroper (expandable polystyrene), thermocole (polystyrene foam) and Basytan (synthetic lathing agents). It also fabricated and sold machinery for the processing of expandable polystyrene. In addition, BAEF India acts as selling agents for imported BAEF products and renders technical customer service in this field.  

3. NGEF Ltd. (Bangalore)

The New Government Electrical Factory Ltd. (NGEF) at Bangalore, largest electrical factory in South India and the second largest industrial concern in this field in the country after Bharat Heavy Electricals, is by now well in a position to make a major contribution towards filling the growing gap between supply and demand. Apart from that, NGEF represents one of the largest projects of Indo-German collaboration.  

NGEF Ltd. started originally as a Mysore Government concern. It was later decided to convert the factory into a limited company in order to facilitate working of a venture of this nature and magnitude on commercial lines. Accordingly, NGEF Ltd. has started functioning as a public limited company with effect from October 1, 1965. For the manufacture of transformers switchgear and motors, the original company in 1961 had concluded a collaboration agreement with AEG, Frankfurt/Berlin, one of West Germany's biggest concerns producing a vast range of electrical equipment from nuclear power station to household

24. Ibid, p. 49.
appliances. Under the technical collaboration agreement, the scope of which had been widened later on so as to include more products and a large installed capacity, AEG have provided all the lay outs of the factory, designs, drawing, production, techniques, training personnel in their factories in Germany, etc. They have also supplied the required number of German specialists for the initial stages of production.  

Initially NGEF had an authorised capital of Rs. 57.5 million. The total estimated capital cost of the project was Rs. 77.7 million. Out of this, the cost of machinery was estimated with a foreign exchange component of Rs. 27.5 million C.I.F., import licenses to the extent of Rs. 25.3 million had been made available for payment out of West German credit granted to India. Evaluating in detail the concept and the implementation of this Rs. 80 million project gives a clear idea of the contribution it is going to make towards industrial development in India.  

NGEF consists of four factories occupying 60,000 sq.m. including administration buildings;  

a) The general shop (15000 sq.m), which is meant for general purposes such as training centre with sufficient capacity to.

25. Ibid. p.49.  
26. Ibid. p.50.
the required artisans, sheet metal shops to produce transformer tanks, switchboard cubicles, machine shop for production of components for switchgear, transformer and motors, tool room for preparing tools, jigs and fixtures, a plating shop and general stores.

b) At the transformer factory (11,500 sq.m.) almost all the machines and equipment except for the 75 ton crane and one vacuum chamber have been installed. Works on the design and production of distribution transformers up to 1600 kva are in various stages and the first batch of six transformers of 100 kva were tested and dispatched. These transformers are of AEG's design using a minimum of scarce materials such as steel, copper and oil most of which is imported.

c) The motor factory (20,600 sq.m) has started regular production of motors up to 30 h.p. This first phase of production will be followed by the production of motors up to 250 hp and then up to 1,500 hp, 6.6 kv.

d) The switchgear factory buildings (4200 sq.m.) have been completed. In the switchgear field, production of fuse bases and NRC fuses, load breakers, drum switches and air circuit breakers for use on low voltage distribution system have been taken up.
4. Telefunken India at Baladwarh (Near New Delhi):

It was established with financial and technical collaboration of Telefunken AG of West Germany in 1966 and started production in 1967. Under the plans the company may in future product tape recorders, record players and T.V. sets as well. Telefunken India has so far introduced to the Indian market five radio models in various price classes and was the first firm to market a two band set in the price range of Rs. 165.

5. UTMAL at Kansbahal near Rourkela, Orissa:

An Indo-German ventures, promoted by Larsen and Toubro Ltd. and three leading West German Companies-Gutehoffnungshuette Stortkrade AG; Heinrich Koppers and J.M. Voith-UTMAL is helping to strengthen and diversify the country’s industrial base. It is bringing in technology and know-how, supplying sophisticated plant and equipment for the expansion and initiation of complex industrial projects and building up a core of management and technical personnel. The location was chosen for its proximity to the Rourkela steel plant, which incidently is among the company’s regular customers. It was also thought that UTMAL would serve the needs of satellite industries that were expected to develop around a steel plant of Rourkela’s magnitude.

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27. Haubold, op.cit., p.142.
Much of what UTMAL has produced has been made in the country for the first time. The company specialises in the design and manufacture of equipment for the iron and steel, cement, mining, pulp and paper, other industries and heavy and technological structural and steel bridges. One of the first major orders executed was 70 per cent of the structural and plate work for the fourth blast furnace of the Rourkela steel plant. Other supplies made to Rourkela include a sintering plant, structural steel for the Coke oven unit, soaking pit and by-product plant. 29

UTMAL'S is the largest engineering factory in Orissa and by standard a very elaborate complex. It is sited on a plot of over 620 acres and an additional 340 acres are being acquired for expansion. The works include a fabrication shop for structural steel work and vessels; a machine shop including ancillary installations such as fitters shop, plumbers shop and apprentices shop; and a foundary. 30

29. Ibid. p. 53.
30. Ibid. p. 54.
It is efforts such as these that have brought India close to an intermediate stage of development. The measure and rate of progress from here on will depend on how much and how fast India is able to bring up technology to a level commensurate with the needs for the optimum utilisation of the considerable capacity that the machine-building industry has created. For the fuller utilisation of this capacity the gap in terms of design and engineering has to be met. And UTMAL with the help of its West German partners is bridging this gap confidently.

6. Widia India (Bangalore)

Widia India (Bangalore) is producing tool-bits with as much indigenous content as possible in collaboration with Widia Germany, a subsidiary of the Fried-krupp concern (Essen) and one of the largest hard metals producers in the world. The Indian company by 1968 had reached the break even point and is now running to full capacity. In 1969, it had showed a profit and also improved its performance in the export field.  

7. Telge (Jasminepur)

Started as a collaboration between Tatas and Daimler Benz of Stuttgart, West Germany and can be considered as one of the oldest and most successful Indo-German joint ventures.

"The happy marriage" as Vice-Chairman of Tatas, Mr. Moolgaokar once called it, has so far produced more than 1.5 lakhs trucks and buses under the Tata-Mercedes Benz trade mark.  

In the public sector, there are landmarks of Indo-German collaboration. Rourkela steel plant was the first, and the only plant which exclusively produced flat steel till 1970, which was much in demand both in the domestic and the export markets. A West-German consortium of world-famous industrial firms like Krupp, Daimler and Voest provided the initial know-how and technology, and thus, the best of the West German steel industry became available to India.

At Rourkela Indusco steel has produced steel, steelmen and a hand of trained engineers, who can design new metallurgical plants. Within 10 years, the expansion of this steel plant from 1 to 1.8 million tonnes was taken in hand and designed and completed under the supervision of Indian engineers, with the continuing help of equipment manufacturers of West Germany.

Mysore Iron and Steel Ltd. at Shadrawati, which is currently being converted into an alloy steel plant and started production during 1970. The successful operation of the steel plant and the increasing demand in the country for special steels

32. Ibid. p.143.
had prompted the Government to expand the capacity of the steel plant for the production of alloy and special steels. As soon as permission was accorded for this expansion programme, the Mysore Iron and Steel Ltd. negotiated with the West German Government for the necessary financial assistance for the establishment of an alloy steel plant with the technical cooperation and assistance of German industries. 34

The West German Reconstruction Loan Corporation agreed for a loan of DM 60 million (M.120 million) and very soon a contract was signed between MISL and DEMAG of West Germany for the supply of plant and equipment totalling DM 1.39 million for the manufacture of 77000 tones per year of alloy and special steels. AG - Telefunken of OFU of West Germany have been awarded a contract for the supply of electrical equipment and furnaces to the value of DM 14.95 million and DM 6.77 million respectively. 35

MISL is the first steel plant in India which has exported technical know-how to a neighbouring country.

35. Ibid, p.31.
Ceylon. An agreement was signed between MISL, and the Ceylon Government for establishing a steel foundry there. This will necessitate exporting castings, and MISL is fully equipped to meet this demand.\(^{36}\)

The expanded steel plant in Bhadravati for the manufacture of alloy and special steels to any stringent specifications opens a new chapter in the industrial progress of India.

2. Technical Relations with G.D.R.

Economic relations between India and G.D.R. have not been limited to mere trade exchange between the two countries. G.D.R. being well advanced in the field of industrial development, has extended technical collaboration in various industrial fields in India, and thereby helped the development of industries in this country. Some of the important industrial technical collaborations between G.D.R and India are listed below.\(^{37}\)

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36. Ibid. p.31.
<table>
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<tr>
<th>PRODUCTS</th>
<th>INDIAN INDUSTRIAL CONCERN RECEIVING COLLABORATION</th>
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<tbody>
<tr>
<td>2. Cables</td>
<td>Premier cables Ltd. Southern cable Corporation.</td>
</tr>
<tr>
<td>3. Electric equipment</td>
<td>Electrical construction and Equipment Company Ltd.</td>
</tr>
<tr>
<td>4. Welding electrodes</td>
<td>ARC electrodes Ltd.</td>
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<tr>
<td>5. Cold storage, refrigeration and air-conditioning.</td>
<td>Blue Star Ltd.</td>
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<tr>
<td>6. Tractors</td>
<td>Indian Agro Machines</td>
</tr>
<tr>
<td>7. Confectionery Machinery</td>
<td>Kavalasan Sugar Farm Ltd.</td>
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<tr>
<td>8. Office Equipment</td>
<td>Godrej Industries Ltd.</td>
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<tr>
<td>9. Precision measuring tools</td>
<td>Meters and Instruments Pvt. Ltd.</td>
</tr>
<tr>
<td>10. Industrial rice mill machinery.</td>
<td>De Met (India Pvt. Ltd.)</td>
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The recent highlights of the economic relations between GDR and India were the successful conclusion of contracts on the supply of tractors for Indian agriculture and above all on the supply of freighters for the Indian merchant fleet. The fast developing and highly productive shipbuilding industry of the GDR attracted the Indian shipping companies, and negotiations started in 1968 between Indian ship owners and ship building industry of the GDR for the delivery of cargo vessels to India. 38

The GDR ranks second only to Japan in building and finishing vessels in the world. On October 31, 1968 a contract was concluded between the Scindia Steam Navigation Company, Bombay, and HHI nowwerft Yard, Rostock, for the construction of four ships. The yard had extended full cooperation in developing a design to suit the Scindia company's requirements for their advanced type Liner ships. Approval of both the government of GDR and the government of India were received. Delivery of these vessels was started in middle of 1970 and was completed by 1971. Payment for the ships was effected under the Rupee Payment agreement. 39

The vessels under contract for India are equipped with the latest technical achievements and are expected to set the pace for the further technical development. The ship which was delivered to the shipping corporation of India, for instance, has a speed of over 21 knots as against the normal speed of about 16-17 knots only. When delivered these ships were the fastest vessels in the Indian merchant fleet. Apart from the high speed, these ships had many other modern features. They are container-oriented and were specially equipped with gear for fast loading and unloading operations. They were also fitted with the latest equipment to improve the efficiency in turn-round and were also able to carry pelleted goods and heavy industrial equipment. Besides this the vessels were provided with large refrigerated space to serve the expanding Indian exports of frozen shrimps, and other sea products and perishable food stuff. \(^\text{40}\)

The GDR has large requirements of freight cars to meet its increased transport needs. The local capacity was limited and substantial imports were planned. The State Trading Corporation has been in close touch with the GDR railways and procuring organisations. A delegation of both organisations visited India in May-June of 1970 at the invitation

\[^{40}\text{Sachse, supra cit., p.1068.}\]
of STC. They were impressed by the industry and the quality of the produce and were fully satisfied that STC would be able to build rolling stock, to meet their specifications. Their detailed technical specifications have been obtained. The State Trading Corporation gave them a commercial-cum-technical offer for the supply of wagons to be followed by negotiations for finalising the deal.41

Railway Wagons and Automobiles Ancillaries

GDR has 16108 kilometers of railway lines and its road mileage was 45530 kilometers, as in 1969. Most of her trade is carried on by the rail and road transport. India, which is becoming a leading supplier of railway wagons and rolling stock, should explore GDR market for this purpose. In the last days of the 1970 GDR had evinced interest in buying wagons from India, especially since India had concluded contracts with Poland and Hungary for the supply of 500 and 1000 wagons respectively.42

Auto Part Export

Besides railways wagons, Indian exporters have good scope for marketing automobile ancillaries into GDR market.

42. Babu, V.Vinthal, "India's Trade with GDR" in Eastern Economist, vol.56, No.3 January 15, 1 71, p.124.
Printing Machinery and Machine Tools:

At the Leipzig Fair contracts were signed for the export of printing machinery to GDR, by Indian suppliers.

Machine Tools:

It is one of the major items in GDR imports list. Indian machine tools manufacturers should, therefore, explore the possibilities of exports to GDR markets. 43

Electric goods:

The electro-technical and electronics is the fastest growing industry in GDR, with a growth rate of about 13.4 percent. This provides excellent prospects for India's exports to GDR of switchgears, electric motors, light fillings, dry and storage batterier, torches and other electrical goods, including transistor valves and T.V. tubes. 44

Ores:

The bias in favour of heavy industries has necessitated GDR to import in large quantities items like structural and industrial ores such as manganese and iron ore. India has been trying to expand exports of these items to GDR. The growing consumption of iron ore in GDR as a result of increasing industrial activity was bound to raise her demand for manganese ore also. 45

43. Ibid p. 123.
44. Ibid. p. 123.
45. Ibid. p. 123.
1. **Importance of Leipzig Fair**

The Leipzig Fair, regularly organised by the Government of the GDR, plays a key role in the development of foreign trade and commerce. During the fair it has become rather customary to enter into contracts of purchase and sale of a wide variety of products between GDR and the participating countries. Almost the entire product profile of the GDR economy is exhibited at the fair, which has long attained the status of one of the most popular international industrial fairs.

India has all along been a leading and regular participant in this fair. However, time has come for India to plan its participation in this fair with a more deliberate effort to promote Indian exports to GDR, rather than aiming at general publicity and exhibition of Indian products. To achieve this, Indian participation should be more selective and be planned with more attention to the trade promotional aspects, with an eye on GDR market in particular. 46

The products listed earlier having potential for exports to GDR should be specially exhibited at this Fair, and during the fair efforts should be made to secure contracts from GDR buyers for their supplies.47

ii. Beneficial Effects:

The beneficial effects of the bilateral economic and technical relations became apparent in spring 1969 when there was an acute shortage of x-ray films in India. Within the shortest possible time, the GDR had found it possible to meet this shortage by an immediate supply of x-ray films to the extent of 0.5 million. The first consignment was directly flown to Bombay as it was urgently needed.48

47. Ibid., p.124.