CHAPTER 7

WORLD BANK'S PROJECT

FINANCING IN INDIA
In the foregoing chapter on India the World Bank's role in the Indian economic planning was discussed, taking into account its lending percentage vis-a-vis other donor countries, its ratio between public and private sector investments in India and the leverage exercised by the Bank. The present chapter intends to discuss the project financing and the economic benefits derived there from.

**TABLE 7.1**

Project-wise Lending as on June 30, 1998

(Million US Dollars)

<table>
<thead>
<tr>
<th>Purpose</th>
<th>No. of Operations</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transportation</td>
<td>13</td>
<td>441.7</td>
<td>20</td>
</tr>
<tr>
<td>2. Industry</td>
<td>23</td>
<td>1044.7</td>
<td>46</td>
</tr>
<tr>
<td>3. Electric Power</td>
<td>9</td>
<td>260.3</td>
<td>12</td>
</tr>
<tr>
<td>4. Telecommunications</td>
<td>3</td>
<td>227.5</td>
<td>10</td>
</tr>
<tr>
<td>5. Agriculture</td>
<td>6</td>
<td>256.2</td>
<td>11</td>
</tr>
<tr>
<td>6. Urban Development</td>
<td>1</td>
<td>25.0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55</strong></td>
<td><strong>2255.4</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Note: In this table are not of cancellations.*


Table 7.1 is indicative of the fact that the IBRD has advanced about $2255.4 million for a variety of projects in India. Major share of its lending has
gone for the development of transport, industry and electric power. Recently the Bank has advanced several loans for the agricultural development which accounts for 11% of the total Bank lending.

TRANSPORTATION

In a country of India’s size and population, transportation requirements are very large. Investment in the transport sector under Five Year Plans has been largely influence by the priorities of other sectors, their growth rate and the demand they are likely to make on transport facilities. The resource constraint has, however, been a predominant factor in determining the size of the transport plan. The processes of industrialization agricultural development themselves demand for increased transportation facilities. Hence, transport development has received high priority in India’s Five Year Plans. Indian investments in the transport field have been very large, absorbing over one-fifth of the total investment in the economy and one-third of the public investment.

The Indian Government and the Bank realized that physical limitations like inadequate transport facilities can be as serious a handicap to economic progress as lack of finance or lack of technical skills. The Bank’s assistance to India dates back to 1949 with a loan for the rehabilitation and development of
TABLE 7.2

World Bank's Transportation Lending as on June 30, 1998
(Million US Dollars)

<table>
<thead>
<tr>
<th>Name of the Sector</th>
<th>No. of Loans</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Railway</td>
<td>9</td>
<td>377.8</td>
<td>86</td>
</tr>
<tr>
<td>2. Ports (Calcutta and Madras)</td>
<td>3</td>
<td>58.3</td>
<td>13</td>
</tr>
<tr>
<td>3. Aircraft (Air India)</td>
<td>1</td>
<td>5.6</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
<td><strong>441.70</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Compiled from IBRD, Annual Reports, 1948-98.*

The Indian railways. Since then, a substantial portion of the Bank lending totalling about $441.7 million has been devoted to the development of Indian transport system. Table 7.2 indicates that railways have received about 86% of the total Bank's lending for transport projects.

(a) **Railway**

With nearly 60,231 route km, India's railway system is one of the world's largest. It is also one of the largest operating organizations of any kind with a regular staff of more than 1.4 million. During World War II, the railway system in India deteriorated seriously because of heavy traffic demands and lack of maintenance. After the War, and especially since Independence, continuous and large expenditures have been incurred to restore and modernize the railways and to expand their capacity to keep pace with the growing...
demand caused by the growth of basic industries and coal consumption of industry.

Since 1951, the railways have greatly expanded both passenger and freight services; passengers carried have increased from 1.3 to 2.3 billion annually and originating tonnage of freight has risen from 93 to 205 million tons per year. The expansion of railway services required large outlay on plant and equipment. The Bank provided a large part of the foreign exchange needed for these investments, and its total lending of $377.80 million is perhaps the largest amount that the Bank has lent for any single enterprise anywhere.

In 1949, the Bank's first loan amounting to $32.8 million was to meet the cost of importing 400 locomotives, locomotive boilers and other spare parts under the rehabilitation programme. These equipments helped to reduce delays in the movement of essential freight and permitted such important commodities as manganese, iron, coal, coke and pigiron to move more freely in India's internal and export trade. During the First Plan, freight carried by the railways grew by one quarter, reaching 115 million tons in the final year of the Plan.

With the Second Plan when pressure on the railways mounted more rapidly, the investment programme for the years 1956-61 provided for further increases of 50% in freight traffic and of 25% in passenger traffic. One third of the Plan investment was devoted to rolling stock, including the acquisition of about 2,400 locomotives and many thousands of passenger cars and freight wagons, the replacement of 12,800 km of rails and sleepers, the doubling of
16,000 km of track and the building of 1,280 m of new track, improvements in yards and signalling equipment and electrification of certain main lines.

Altogether this programme cost the equivalent of $2,300 million, of which about one-third was in the form of foreign exchange. Towards this foreign cost, the Bank provided $295 million (i.e., 40% of total foreign exchange) in seven loans during 1957-60. The task accomplished under the Third Plan was equally great. Rail freight traffic increased by more than a third from 156 million tons to 206 million tons, mostly in bulk commodities such as coal, iron ore, steel and cement, and passenger traffic increased by 15%.

During the Plan period, 1,860 new locomotives (including for the first time diesels in large numbers), 8,400 passenger cars and 84,000 freight wagons were acquired, about 2,150 route kilometres were added to the system, and large sums were spent on workshops, permanent way traffic equipment and electrification.

Although total investment of the Third Plan had risen to $3,500 million, the foreign exchange cost of this programme was slightly lower than in the Second Five Year Plan, as India itself could by then manufacture most of the equipment needed. Nevertheless, about one-seventh ($510 million) of foreign exchange was required. The Bank provided its ninth loan of $50 million in 1961 for the improvement and expansion of the Indian railways. The amount was used to help meet the foreign exchange cost of equipment and material to
be imported during the year of 1962. It is significant to note that since then no loan has been advanced by the Bank for the railway development.

The continuing development programme of the Indian railways aims at an increase in productivity and at a more efficient use of the transport rather than at an extension of the network. The expansion programme which was undertaken during the Third Plan with the help of the Bank loan, enabled the railways to handle with ease the increased volume of traffic recent years and except for temporary local shortages, to cope with seasonal fluctuation. Since 1982, the IDA has provided about six loans for the railways development in India.

(b) Port

India has along coast-line of about 6,100 km and relies heavily on its major ports for stimulating foreign trade. India’s eight major ports which are administered by statutory port trusts under the Central Government, handle more than 55 million tons of traffic every year. Most of the exports and imports of India pass through the major ports of Calcutta, Bombay, Marmagao, Vishakhapatnam and Madras. The Bank has made three loans to help finance the port improvement in Calcutta and Madras.

(i) Calcutta Port

The port of Calcutta is India’s largest for dry cargo. The Bank advanced its first loan of $ 29 million in 1958 which helped finance a rehabilitation programme that relieved congestion and provided required capacity to enable
the port to handle an additional two million tons of traffic each year. The project included the improvement of berthing capacity and of the railway marshalling yard, harbour craft, transit and storage facilities. In July 1961, with navigational conditions at their worst, the Bank made its second loan of $18.8 million which mainly financed the purchase of dredges and other harbour service vessels. The loans also financed the foreign exchange costs of a study directed towards solutions to the problem of siltation in the Hooghly river.

(ii) Madras Port

Madras on the south east coast is the third largest port in India. By 1958, it was handling about 2.5 million tons of traffic a year and the number of ships calling at the port had reached about 1,000 a year, an increase of 30% since the end of World War II. At that time traffic was expected to grow by another 50% over the next ten years. To help meet this increase, the Bank provided a loan of $10.5 million which covered the foreign exchange cost of a major expansion programme for the port. The project included a new dock with six births for coal and ore, improvement of a third berth for both passengers and cargo, and a new railway marshalling yard.

(c) Aviation

In March 1957, the Bank advanced its first loan of $5.6 million to the Air India International Corporation to purchase additional air-craft and ancillary equipment. The Air India International Corporation is a Government enterprise operating international air services. The loan helped to finance the
foreign exchange cost of buying three long-range jet airplanes, ten spare engines and ancillary equipment.

INDUSTRY

Although agriculture is the dominant sector of the Indian economy, industry has been gaining importance since the Second Five Year Plan was launched. In the past 20 years India has made substantial progress in the industrial field. In the early 1950s the textile industry dominated the Indian industrial scene. Comparatively little of other large-scale modern industry existed. There were the beginnings of a steel industry, producing about 2 million tons of crude steel. Production of coal was sizeable at 33 million tons while production of iron ore was 3 million tons; production and refining of petroleum was negligible. Fertilizer production was virtually non-existent.

The situation has changed. Under the Second and Third Plan a purposeful and ambitious effort toward rapid industrialization, concentrating on import substitution, was made the focal point of the Government's strategy of economic development. Among industrial investment, particular emphasis was placed on engineering industries producing capital goods required for economic growth. As a result of these investments, made since 1955, India now has an extensive and sophisticated manufacturing capacity that can produce a wide variety of industrial goods.

Since 1952, the Bank has approved $1,044.7 million in 23 loans for a number of investments in the industrial field of India. Table 7.3 indicates the
The ICICI has been the largest borrower accounting for about 44% followed by the iron and steel industry.

**TABLE 7.3**

Bank’s Lending for Industrial Development in India as on June 30, 1998

(*Million US Dollars*)

<table>
<thead>
<tr>
<th>Purpose</th>
<th>No. of Loans</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Iron and Steel</td>
<td>6</td>
<td>176.9</td>
<td>16.2</td>
</tr>
<tr>
<td>(a) IISCO</td>
<td>4</td>
<td>69.4</td>
<td></td>
</tr>
<tr>
<td>(b) TISCO</td>
<td>2</td>
<td>107.5</td>
<td></td>
</tr>
<tr>
<td>2. ICICI</td>
<td>12</td>
<td>515.0</td>
<td>49.8</td>
</tr>
<tr>
<td>3. IDBI</td>
<td>2</td>
<td>65.0</td>
<td>6.5</td>
</tr>
<tr>
<td>4. Coal Mining</td>
<td>1</td>
<td>28.8</td>
<td>2.7</td>
</tr>
<tr>
<td>5. Fertilizer</td>
<td>1</td>
<td>109.0</td>
<td>10.4</td>
</tr>
<tr>
<td>6. Oil Exploration</td>
<td>(Bombay High)</td>
<td>1</td>
<td>150.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
<td><strong>1,044.7</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Note:* In the tale Bank’s loans are net of cancellations.


(a) **Iron and Steel**

India has all the materials required for iron and steel making. The expansion of the industry has been the centre-piece of the industrial programmes included in the Second and Third Five Year Plans. The IBRD has
lent $176.9 million to assist the two private steel producers – the Indian Iron and Steel Company (IISCO) and the Tata Iron and Steel Company (TISCO) – in expanding their output from 1.3 million tons in 1955 to 3.3 million tons of ingot steel in 1965, i.e. to almost one-half of the total Indian steel production.\(^{18}\)

(i) **Indian Iron and Steel Company (IISCO)**

The Bank has advanced four loans to this company totalling $69.4 million. All loans were guaranteed by the Government of India. The larger of the two, TISCO began producing steel in 1911 and IISCO in 1874. When Independence was achieved, it was clear that the industry's capacity was inadequate to meet the existing demand. The Industrial Policy statement, issued in 1948, included the iron and steel industry among those in which the state itself found it necessary to secure the cooperation of private enterprise subject to such control and regulation as the Central Government may prescribe.

During the period of First Plan the Government was to build two new steel plants but after some time it became clear that it would be very difficult to do so because of the many claims on its investment resources for the river valley development and increases in food production. In view of all these circumstances the Government decided to expand the existing capacity of the IISCO and the TISCO.

In 1952, the IBRD provided a loan of $29.20 million to IISCO to cover the foreign exchange cost of the 1953 extensions. The project was designed to raise pig iron capacity from 6,40,000 to 14,00,000 tons and finished steel
capacity by 3,50,000 tons. The proposed loan enabled the company to expand its integrated steel plant in Burnpur in the Damodar Valley. This was the Bank’s first loan in the manufacturing field was an essential element in the First Plan for economic development.

The TISCO had already started a seven year modernization programme in 1951. The Government asked both the companies (IISCO and TISCO) to expand once more as a part of the Second Plan. TISCO was asked to increase its capacity to 2 million tons of ingot steel and 1.5 million tons of saleable steel. The demand for steel in India had already necessitated heavy imports and it was expected that growth in other sectors of the economy would increase the demand for steel products, particularly in the railways, industry, power, irrigation works, etc.

The IISCO’s output of saleable steel rose to 4,50,000 tons annually by 1986, which exceeded the target. This increase was achieved by increasing efficiencies without additions to plant. This extension was merely to increase its rolling mill capacity to handle the 8,00,000 tons it would be producing when the 1983 extensions were completed. At the same time the Government undertook to build three steel plants, each with a capacity of 1 million tons.

During the First Plan the Government reviewed its position in connection with position of private companies in iron and steel industry, and in 1956 a new industrial policy was issued. It placed considerable stress on industry, particularly on heavy industry. The Second Plan stated:
The basic criterion for determining the lines of advance must not be private profit but social gain... Major decisions regarding production, distribution, consumption, and investment must be made by agencies informed by social purpose. Private enterprise, free pricing, private management are all devices to further what are truly social ends; they can only be justified in terms of social results.

The Second Plan was, however, extremely ambitious, and called for a total investment of twice the amount invested during the First Plan period. Both the IISCO and the TISCO sought the Bank's help in financing the foreign exchange cost of these new programmes. The IBRD provided $19.9 million to IISCO in December 1956 to help increase the rolling mill capacity at Burnpur. Together, the two loans assisted the company in raising its capacity of producing ingot steel from 4,50,000 to over 1 million tons a year. This increase was more than what was envisaged in the project. The expansion programme required additions of two stands to the billet mill to permit the use of 9" X 9" billets instead of 7" X 7" billets then used. The Bank’s loans helped in installing a new bar mill having an annual capacity of 1,80,000 long tons and a 20,000 KW steam turbine generator.

(ii) Tata Iron and Steel Company (TISCO)

The TISCO is one of the largest integrated plants in Asia and has a long record of sound management and profitable operations. As already pointed out TISCO started its expansion programme in 1951. The IBRD two loans
amounting to $107 million. The first loan of $75 million was made in 1956, the largest loan ever made in Asia for steel industry. A second loan of $32.50 million was made in 1957. Under modernization and expansion programmes, the main installations to be completed, were the construction of a new coke over battery and the remodelling and expansion of the existing batteries to increase plant capacity from 3,120 to 4,400 tons of coke per day.

During the fifties, the TISCO carried out four major programmes to modernize the company's facilities at Jamshedpur and to expand its annual ingot capacity from 1.1 million tons to 2 million tons. These programmes were virtually completed in 1962, by about two years behind schedule. The Second Plan thus achieved its objective of more than tripling the capacity in somewhat more than tripling the capacity in somewhat more than six years, instead of the Plan's five. In 1962, production reached 8,000 tons of saleable steel per annum, compared with 3,171 tons in 1952. The Bank Mission in 196 attributed this lag in the public sector to the lack of skilled managers and foremen and to the confused lines of responsibility. At the same time it attributed the lag in the private sector to difficulties in the supply of raw material.

The ISCO's coal supplies were particularly hard hit in 1961, the company sought the third Bank loan of $18.6 million which enabled the ISCO to increase its coal production from 26 to 2.2 million tons per annum, and also to sufficiently develop its own mines to meet all its needs and to construct a set
of two deep underground mines and one open cast mine at the IISCO properties at Chasnalla.

Due to growing demand for iron and steel called for a further expansion of Indian steel capacity. Initially this expansion was to take place entirely in the public sector with a target of an annual capacity of 9.2 million tons of ingot or about 7 million tons of saleable steel. The IISCO, was asked to increase its production of ingots by 3,00,000 tons a year to permit a better utilization of the rolling capacity which it had added under earlier extensions. In 1986, the Bank advanced its fourth loan of $ 30.0 million to double the company's coal mines and building of coal ropeway from mine to mill. The project was expected to increase by 1990 the company's output of saleable steel by about a third and included improvements at iron ore mines.

(b) Industrial Credit and Investment Corporation of India (ICICI)

Development finance companies play a vital catalytic role in the mobilization of capital for industrial and commercial development by providing loan or equity finance by underwriting security issues, by serving as financial intermediaries between local and foreign businessmen, and by providing locally established companies with managerial and technical advice. Unlike the Central and State Corporations, the ICICI is a privately owned and managed Corporation, set up in 1954. It was established for assisting the growth of private industry in India. It developed from discussions conducted in India in February 1954 by two IBRD consultants together with India's industrial
leaders. The main reason for the establishment of this Corporation was the quasi-Government character of the Industrial Finance Corporation of India which had not been able to meet the long-term requirement of industry as effectively as it should have done.

The role of ICICI is to promote large and medium scale enterprises primarily in the non-traditional sectors of industry. As on December 1994, ICICI had approved financial assistance totalling over $5,000 million to some 1,600 projects. Of this amount 21% had gone to chemicals and petro-chemicals and about 18% to metals and metal products. Total exports by the ICICI clients in 1973 amounted to about $153 million. The operations of this Corporation have significantly contributed to the creation of employment opportunities. According to one estimate, the projects financed by ICICI have led to the creation of 2,28,000 jobs which represents about 5% of industrial employment in factories in Indian having over 25 workers or 11% of the employment created in Indian Industry since 1955. The IBRD has provided 12 loans amounting to $515 million between 1955 and March 1998 for the ICICI’s foreign exchange resources. The foreign exchange provided by the IBRD has been used in supplementing the foreign exchange resources by about 417 small industries through ICICI operations.

(c) Industrial Development Bank of India (IDBI)

Recently the Bank has advanced two loans amounting to $65 million to the Industrial Development Bank of India (IDBI). With help of the first loan,
foreign exchange will be made available to the country’s 18 state financial corporations (SFCs) for lending to small and medium-scale industries. Through the IDBI the SFCs will receive the funds, which will cover their foreign exchange requirements for two years. The second loan will provide foreign exchange through the IDBI to meet foreign exchange costs of the medium-sized industrial projects in the public and joint sector sponsored by the states of India.

(d) Coal Mining

India’s abundant reserves of coal are among its most important natural resources and the basis of its industrialization. Coal accounts for 83% of commercial energy generated in India. Half the country’s electricity supplies are generated from coal, and the expansion of the steel industry is predicated on large reserves of coking coal. Despite an increase in the annual production of coal from 38.2 million to 55 million tons during the Second Five-Year Plan, i.e. an increase of over 40% in the annual production of coal, there was still shortage which hindered the growth of industrial production.

In view of the importance of private coal industry of the attainment of this goal, the Government took a number of measures to enable private companies to expand production, including a system of subsidies for mines with difficult operating conditions, permissions to open new mines and an assurance of policies favourable to continued mining by private companies.
The Bank advanced in 1981 a loan of $28.8 million to assist the private coal mining industry in expanding production. To meet the industrial goal, India’s annual production of coal needed to be increased by some 80% over the then existing output, from 55 million to 97 million tons in 1986, the last year of the Plan. Private companies, as a part of their programme, intended to expand existing facilities and open new mines to increase their annual production of coal from 44 million to 61 million tons. The loan provided foreign exchange required to import the necessary equipment.

(e) Fertilizer

India’s strategy has been to sustain the momentum of growth in the country’s agricultural sector by increasing the supply of fertilizers and other modern farm inputs. A major goal of Indian fertilizers and other modern farm inputs. A major goal of Indian economic development is self-sufficiency in agriculture and fertilizer. An effort to expand India’s fertilizer production rapidly was made in 1965 along with the introduction of the new agricultural strategy, emphasizing the development and spread of high-yielding seeds requiring irrigation and heavy applications of fertilizers. Since then, India has increased its nitrogen fertilizer production capacity to about 1.4 million tons per year. New capacity totalling almost a million tons per year of nitrogen is under construction, and long range plans are intended for a four-fold increase over the existing capacity.
Despite recent increases and planned new facilities, the internal production of both nitrogen and phosphate has not met demand in the past and will not probably be able to meet the rising demand over the next decade. It has been noted that India has been spending about $150 million a year on the import of fertilizers and fertilizer raw materials. India’s efforts to increase the country’s fertilizer production will be assisted by a Bank’s loan of $100 million made on January 7, 1975.

This is the first Bank loan in the field of fertilizer manufacturing. This loan represents a new direction in the IBRD lending programmes in India. The loan will help finance the construction of a plant in Phulpur (UP), to produce 900 tons of ammonia and 1,500 tons of urea per day.

The $220.5 million project was scheduled to start commercial production in 1978. It is expected that the project, after its completion, will add about 2,30,000 tons per year of nitrogen to India’s fertilizer capacity. Moreover, it will help India to save $59 million a year in foreign exchange. The increased fertilizer output will help to increase Indian food production by more than one million tons a year.

Currently, India has an installed capacity of about 2.5 million nutrient tons of nitrogenous and phosphatic fertilizers. This is inadequate to meet even the present level of consumption. India plans to create an installed capacity of 4.9 million tons of nitrogen and 1.2 million tons of phosphate by 1998-99. The present project, being assisted by the IBRD, is part of this effort. It is estimated
that under the present Indian conditions, the application of one nutrient ton of fertilizer yields an additional production of five to seven tons of foodgrains. Thus shortfalls in the supply of fertilizer seriously impair food production.

(f) Oil Exploration (Bombay High)

An important new development in the fiscal year 1997 is the IBRD's loan of $150 million for the development of the Bombay High and Bassein oil and gas fields. The project is the first operation of the Bank in India's petroleum sector.

The two fields should yield up to 13 million tons of oils equivalent at maximum production. This will be substituted for crude oil imports and is expected to bring India net foreign exchange savings of $16,000 million over the next 20 years.

ELECTRIC POWER

Successive Five Year Plans have assigned high priority to electric power development to ensure an adequate supply of power for industrial development. Power generating capacity in India has increased from 2.3 million KW in 1951 to some 15 million KW in 1995. The number of village electrified has increased from about 3061 in 1980-81 to 2,22,869 in 1997-98. The length of transmission lines increased from about 24,400 to 3,22,000 circuit miles up to 1991-92.

The IBRD has been a major participant in the development of electric power facilities in India. It has provided $260.3 million for the development of
power resources and for developing regional transmission networks. Table 7.4 is indicative of the break-up of loans to different projects.

**TABLE 7.4**

World Bank's Aided Power Projects

*(Million US Dollars)*

<table>
<thead>
<tr>
<th>Power Projects</th>
<th>No. of Loans</th>
<th>Amount</th>
<th>Total cost of the project</th>
<th>% of the IBRD in the total cost</th>
<th>KW generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Damodar Valley Corporation (DVC)</td>
<td>3</td>
<td>49.2</td>
<td>N.A.</td>
<td>-</td>
<td>4,75,000</td>
</tr>
<tr>
<td>2. Trombay</td>
<td>3</td>
<td>128.5</td>
<td>251.0</td>
<td>52</td>
<td>2,37,500</td>
</tr>
<tr>
<td>3. Koyna</td>
<td>1</td>
<td>18.7</td>
<td>N.A.</td>
<td>-</td>
<td>2,40,000</td>
</tr>
<tr>
<td>4. Kothagudem</td>
<td>1</td>
<td>13.9</td>
<td>66.1*</td>
<td>30</td>
<td>1,20,000</td>
</tr>
<tr>
<td>5. Power Transmission</td>
<td>1</td>
<td>50.0</td>
<td>390.0**</td>
<td>28</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9</td>
<td>260.3</td>
<td>-</td>
<td>-</td>
<td>10,72,000</td>
</tr>
</tbody>
</table>

N.A. = Not Available.

*Total cost of two stages. First stage was financed by the IDA in May 1983.

**Total cost of the power transmission system expansion programme during 1994-998.
(a) **Damodar Valley**

In the late 1940 the Indian Government drew up a unified scheme to develop and distribute electric power, control flooding and improve irrigation in the Damodar Valley, the heart of India's heavy industry. The execution of the scheme was entrusted to the Damodar Valley Corporation (DVC), created in 1948, on the pattern of Tennessee Valley Authority in the United States. The IBRD extended three loans to help the Corporation to increase its electric generating capacity, a key factor in industrialization of the Valley.

The first Bank loan, made in 1950, provided $16.7 million for a project whose main feature was the construction of a large new thermoelectric power station at Bokaro, the largest thermal plant in Asia. Specifically, the project included construction of a thermal plant, an earth-fill dam, a hydroelectric plant, transmission lines and supporting necessaries. It is important to note that the Bokaro Plant, situated in the state of Bihar, was designed for an ultimate installation of 2,00,000 KW. The initial installation was 1,50,000 KW consisting of three turbo-generator units of 50,000 KW each. Another important feature of the project was the construction of an earth-fill structure about 12,600 feet long with a maximum height of about 160 feet, which provided transmission facilities in the adjacent area.
has now been turned into flourishing fields, and plumes of smoke from new plants rise in the air. With more than 80% of India's coal and 98% of its iron ore, the Damodar Valley is beginning to boom. The electric power is having a social impact on India where, in most of the towns, activity ceases at sunset. In the surrounding cities of the Valley electricity has introduced a night life. Shops stay open, movie houses operate, and radios are going full blast.

(b) Trombay Power Project

The Bank has made three loans for power generation in the Bombay-Poona region on the west coast. Electricity consumption in this region, well known for its textile industry and other manufacturing activities, is about ten times the national average on a per capita basis. Finances provided by the Bank have helped the growth of industry in this region. During the 1950s, there was considerable expansion in most of these industries. In addition, two oil refineries and a rayon factory were under construction. This industrial expansion, combined with increasing demand for power for commercial and residential purposes, necessitated severe restrictions on the consumption of power. Further growth in demand was expected for many years to come, and hence additional capacities for the new plants were urgently needed. Moreover, the then prevailing system, being largely hydroelectric, was highly vulnerable to shortages of rainfall as it occurred in 1951.

The first Bank loan, granted in 1954, made available a sum of $13.8 million. The borrowers were three private firms forming part of the Tata group.
of companies. The loan paid the foreign exchange costs of constructing a thermal electric plant at the Trombay Island (near Bombay), with two turbo-generators, each with a maximum capacity of 62,500 KW. The plant was designed to relieve the acute power shortage in Bombay and the surrounding area, a major industrial centre. The two units, above stated, came into operation in December 1956 and June 1987. The Bank made its second loan of $9.8 million in 1987 for the installation of the third unit at the Trombay electric power project with a maximum capacity of 62,500 KW raising the plant to a maximum capacity of 1,87,500 KW.

In 1998, the Bank advanced its third loan of $105 million to Trombay Thermal Power – Tata Electric companies – which will help meet the forecast load growth in the Bombay area with a 500 MW power generating unit, the first single unit installation of its size in the country, together with boiler, electrical and mechanical equipment. The Bank will provide about 51% of total cost of the project.

(c) Koyna Power Project

A Bank loan of $18.7 million, made in 1959, covered most of the foreign exchange requirements of the first stage of Koyna hydroelectric power project, 208 km south east of Bombay. The Koyna project was designed to provide most of the additional electric power needed in the Bombay-Poona area where the industrial growth was very rapid during the 1960s. Its first stage completed in 1963, and it included the construction of a large dam together
with a 2,40,000 KW underground power station and transmission lines. In addition, a tunnel system was constructed to divert part of the flow of the Koyna River from the eastern to the western side of the mountains which form the continental division of India.

(d) Kothagudem Power Project

A Bank loan of $ 14 million, made in June 1965, helped in financing the extension of the Kothagudem power plant by installing two additional 60,000 KW steam turbo alternators. The extension project was designed to bring the station to its designed capacity of 2,40,000 KW. On the completion of Kothagudem and another large power project, it was expected to increase the installed capacity in Andhra Pradesh, from 2,92,000 KW in 1965 to 6,00,000 KW in 1967.

Power demand in Andhra Pradesh grew at a fast rate, averaging 23% per annum during the first two plans period (1951-60). Demand exceeded the available capacity. On the completion of Kothagudem and the other large power project, the increased capacity permitted the removal of all restrictions on consumption.

(e) Power Transmission

Besides financing individual power projects, the Bank has also assisted in the development of regional transmission networks. During the past few years, there has been rapid development of transmission facilities in India to interconnect power sources within the states. Growth of industry under
successive Five Year Plans and large investments required to meet the accompanying rise in demand for electricity underlined the need to form regional grids to make the most economical use of electricity. During the 1994-98, the Government took steps to further integrate its power system by interconnecting the state grids to form regional networks. The programme involved an expenditure of $390 million, of which $120 million was in the form of foreign exchange. The Bank’s loan of $50 million made in June 1995, helped finance the construction of 121,800 km of transmission lines and the construction or extension of 300 substations.

TELECOMMUNICATIONS

India’s large size and the wide dispersal of industrial and agricultural activities in the country generate an enormous movement of goods from the producing to the marketing centres. This imposes heavy demands on telecommunication facilities to assist the flow of information within the producing areas and between these and the principal market outlets of Bombay, Calcutta, Delhi, Madras and Nagpur. During the last decade, telecommunication facilities in India have been greatly expanded, partly with the assistance of the IBRD and partly with that of the IDA. Since 1961, the number of connected subscriber lines rose from 3,30,000 to more than 9,50,000; a high capacity co-axial cable trunk network interconnecting the principal cities of Delhi, Calcutta, Bombay, Madras and Coimbatore and places in between had been constructed; long distance subscriber dialing facility had
been provided to handle about 30% long distance calls; and a telex network was installed.

Despite this expansion, telephone, telex and telegraph services were quite inadequate to meet the rapidly growing commercial, industrial and administrative demand. With 9,50,000 telephone connections, telephone density in India was still about 2 telephones per 1,000 people, as compared to, for example, 18 per 1,000 in Malaysia and 9 per 1,000 in Iran.

In order to meet the growing demands of the economy, the Post and Telegraphs Department (P & T) of the Government of India launched a Five Year Programme (April 1969 – March 1974) to expand and modernize the telecommunication facilities at a cost of $ 652 million. The programme included the expansion of automatic and manual local telephone exchanges, together with the necessary cables and subscriber equipment to connect an additional 5,40,000 telephone subscriptions. Long distance facilities were greatly improved and the telex network and public telegraph services expanded. The IBRD loan in 1969 provided $ 27.5 million to assist this programme. On July 6, 1976, the IBRD advanced a second loan of $ 80.0 million (sixth from the World Bank Group) for the telecommunications.

The project is a self-contained part of the Post and Telegraph Department’s expansion programme (which calls for the addition of more than a half million telephone lines between 1977 and 1979). The project will help
alleviate congestion in city and long-distance telephone networks, improve telex services and bring telephone services to 2,20,000 new subscribers.

The IBRD will meet about 20% of the total cost of the project.

In 1998, the Bank advanced its third loan amounting to $120 million to help finance a priority component of the Post and Telegraph's Telecommunication Branch investment programme. The project will significantly extend the present network to rural areas. In addition, the production facilities of the three major Government-owned telecommunication equipment manufacturers will be upgraded and modernized.

**AGRICULTURE**

The agricultural sector plays a predominant role in the Indian economy, accounting for about 43% of GNP and absorbing 70% of the labour force. The achievement of growth in real income is essentially dependent on the growth in real income is essentially dependent on the growth of agricultural production. Increased agricultural production to meet the needs of India's fast expanding population has been one of the basic objectives of her Five Year Plans. As a result of the new agricultural strategy Indian agriculture has moved from the stagnation of the 1960s to one of promise in the 1970s. Already significant increases have been obtained. India plans to achieve an annual growth rate of more than 5% in agricultural output in order to stay ahead of the demand for farm products during the decade.
Although substantial progress has been achieved in the production of foodgrain, a difficult and expensive job yet remains to be done in extending the improved agricultural technology to other agricultural crops. The Government’s efforts are also directed towards bringing into fold of the so-called “Green Revolution” a larger number of farmers including small cultivators and farmers in the dry areas and towards alleviating the problem of unemployment and under-employment in the rural areas. The Bank’s loans, given for the different sectors of agriculture, are detailed in table 7.5.

As is evident from these figures, the Bank provided only six loans between 1949 and 1997 amounting to $ 256.2 million for weed control, seed project, irrigation and fisheries. The Bank advanced its first loan for land development in 1949, and since then there has been no lending till recently when the IBRD advanced four loans during the period of 1994-98. The IBRD’s assistance to the Indian agricultural sector, particularly over the period of last four years, has been in support of the new agricultural strategy. As part of its continuing efforts to assist in sustaining the momentum of growth in the agricultural sector, the Bank has expanded the volume and range of assistance in recent years.
TABLE 7.5
IBRD Loans to India for Agriculture as on 30th June, 1998

(Million US Dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Purpose</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1949</td>
<td>Weed Control</td>
<td>7.2</td>
</tr>
<tr>
<td>1969</td>
<td>Tarai Seed project</td>
<td>13.0</td>
</tr>
<tr>
<td>1994</td>
<td>Irrigation</td>
<td>52.0</td>
</tr>
<tr>
<td>1996</td>
<td>Irrigation</td>
<td>145.0</td>
</tr>
<tr>
<td>1996</td>
<td>Seeds</td>
<td>25.0</td>
</tr>
<tr>
<td>1997</td>
<td>Fisheries</td>
<td>14.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>256.20</strong></td>
</tr>
</tbody>
</table>


(a) Weed Control

In the earlier years of its operation the Bank assistance to Indian agriculture was largely confined to irrigation and flood protection works. In September 1949, the Bank provided a loan of $7.2 million net of cancellation, which helped to finance the import of agricultural machinery for the reclamation work in central India and for the experimental clearing of jungle lands. The programme which was carried out by the Central Tractor Organization (CTO), consisted of the deep ploughing of more than 1 million acres of Kans-infested land together with a pilot scheme for the clearing and ploughing of jungle lands. The scheme confirmed the view that the clearance of
jungles in India could be successfully carried out with mechanical equipment. It was estimated from the project that the output of wheat marketed from the Kans area would increase annually by about 3.5 lakh tons after the land was cleared.

In the initial stage the projects had to face some obstacles such as managerial and technical. Better results could have been achieved if all State Government had made large blocks of land available to the CTO to permit operations to be carried out economically.

(b) Tarai Seed Project

The Government of India, since 1965, had given high priority to increasing agricultural production through investment in modern inputs such as fertilizers, high-yielding seeds, better water use and improved credit institutions. On June 11, 1969, the Bank advanced a loan equivalent to $ 13 million to increase agricultural production through a project to grow seeds of high-agricultural production through a project to grow seeds of high-yielding varieties for foodgrains. This loan was the first to finance the seed project in all the member countries of the Bank. On completion, the project was expected to produce enough certified seeds to plant some 7 million acres annually.

Specifically, the project included the cultivation of high-yielding varieties of seeds on private farms the cultivation of high-yielding varieties of seeds on private farms in the Tarai area, a fertile belt about 96 km wide and 17 km long lying between the foot hills of the Himalayas and the open plains in
UP. The soil, climate, water availability, transport facilities were all conducive to the success of the project. Moreover, the farm development of some 46,000 acres for seed production included provision of tubewell, irrigation, land levelling, installation of underground water distribution systems in the fields, and more intensive mechanization of farming operations.

In 1976, the Bank’s loan of $25.0 million was for the second seed project to support seed production in India. The project was to focus on the development of quality cereal seeds (wheat, rice, maize, sorghum and pearl millet) and, to a lesser extent, of be made in seed technology, research, quality control and production and storage facilities. The Bank is financing about 50% of total cost of the project.

(c) Irrigation

Another innovation in the financing of Indian agriculture is the support being given to development of command areas of existing irrigation projects. A Bank loan of $52 million advanced on June 18, 1994 for the Chambal Command Area Development Project, Rajasthan, is the first stage of a programme to improve and complete the existing irrigation facilities, construct drainage works and provide for farm development in the project area. Specifically, the project includes the construction of main and secondary drains over about 4,17,500 acres, the construction of about 14 km of canal lining, increase in the capacity of about 850 km of canals, the construction of irrigation and drainage ditches and cart tracks to serve about 1,25,000 acres of irrigated
land, reshaping of fields and anti-water logging operations. It may be emphasized that this project, if properly carried out, could benefit farmers considerably. For example, improvements in an existing irrigation project may create 20,000 jobs over the next decade and increase foodgrains production from 1,40,000 to 3,50,000 tons. More than half of the farmers in the project area are within the lowest 40% on India’s national income scale. The scheme deserves high priority.

On May 4, 1996, the Bank advanced second loan of $145.0 million for irrigational facilities. The project will increase about fivefold the production of rice and other crops on 72,000 hectares of land in Andhra Pradesh. 1,00,000 farms will be supplied with reliable irrigation and as many as 1 million people will be provided employment. The project will complete the construction of irrigation and drainage canals in the Nagar-junasagar irrigation system and provide the first phase of command area development for four irrigation systems in the state. The Bank is providing about 50% of the total cost of the project.

(d) Fisheries

For the first time in India, the IBRD advanced a loan of $14 million on March 31, 1997 for fisheries project in Gujrat. Infrastructure for eight fishing villages are to be developed, facilities in two fishing ports be improved and credit to be furnished to fishermen. The project will increase fisheries
production for domestic consumption and export. The Bank is providing about 40% of total cost of the project.

In the earlier years of its operation the Bank’s assistance to India agriculture was largely confined to irrigation and land reclamation projects. In recent years, the pattern of the Bank’s agriculture assistance in India has undergone a rapid change. Apart from continuing the traditional support for large flood control and irrigation schemes, support is also being given to projects which involve a comprehensive approach to agricultural development. All the projects have been designed to foster agricultural production through the provision of essential inputs such as credit and on-farm investments, command area development of existing irrigation schemes, and high-yielding seed production. Moreover, special emphasis is being placed on improving the economic condition of small farmers and landless labourers.

Urban Development

For the first time in the history of its lending operations in India, the Bank has advanced during the fiscal year 1997 a loan of $ 25 million for urban development. The loan is for the improvement of urban transport system in Bombay. The loan will be given to the Bombay Metropolitan Region Development Authority (BMRDA). Under the project, the bus services in the Greater Bombay area will be improved, and development planning and traffic management support. The said project is designed to increase mass transit
capacity and efficiency in one of India's most dynamic urban regions. The Bank will provide about 50% of total cost of the project.

**THE IMPACT**

Having delved deep and quite extensively into the IBRD lending in India, the final question of evaluation of this aid still remains to be answered. The foregoing analysis has shown that the IBRD has penetrated far into the Indian economy and helped promote its development. India has been a major recipient of external assistance from the member countries of the Aid India Consortium and also East European countries. This dependence on foreign aid increased from 6% of investments in the First Plan to 13.2% in the Second, 17% in Third Plan, 14.3% in the Fourth Plan and 6.4% in the Fifth Plan (1974-79). The IBRD’s annual average contribution for the specific project lending since the commencement of the First Five Year Plan of India has been about S84 million.

Upto March 1998, total authorized aid to India amounted to the tune of Rs. 21,456 crores, out of which Rs. 1,296 crores, i.e. more than 6% has been advanced by the IBRD. Percentage of the IBRD’s share to the total foreign aid authorized declined from 14% during the First Plan to 3.8% during the Fourth Plan but increased to 10.2% during the Fifth Plan. A major portion of the IBRD lending (i.e., about 66% of the total upto 1970) came to India upto the end of the Third Plan, and till that period India had been the largest borrower of the Bank’s lending. During the period 1985-1995 the Bank’s lending declined to a
greater extent, while there has been a tremendous increase in the Bank's lending over the last few years.

The declining trend in the Bank's lending should not be considered as symptomatic of the declining interest of the IBRD in Indian economy. The main cause of this decline was that India has to repay heavy external debt and as a result of this, all the IBRD projects were transferred for the IDA financing, a soft loan window of the Bank.

During the planning period, the Bank realized the problems of Indian economy and helped with money and technical assistance. The Second Plan witnessed a major foreign exchange crisis; the Bank came forward and brought together a group of rich countries (known as Aid India Consortium) for reviewing the balance of payments position and future capital requirements of Indian development plans. During the same period, the Bank mediated a settlement of the Indus water dispute between India and Pakistan. During the Third Plan several technical missions from the Bank came to India and assisted formulating the policies along with a general endorsement to the Plan.

The Bank advanced its lending to the public and the private sectors both. The ratio between public sector and private sector lendings by the Bank up to June 30, 1998 came to 56:44. Upto the end of the Third Plan India's public sector accounted for 62% of the total IBRD lending to India. This was due to the sudden expansion of India's public sector. During the period 1985-94 the
private sector loans have exceeded those to the public sector. Since 1994, there has again been an expansion of public sector loans.

Public sector loans have been mainly for the development of socio-economic infrastructure, i.e., for transportation, electric power generation and telecommunications, etc., while that of private sector loans have gone for the modernization and expansion of iron and steel companies, expansion of coal mines, development of finance companies, viz. the ICICI, IDBI, and fertilizer manufacture. In the private sector the Bank aid helped broaden the development base and financial market.

The Bank's policy was criticized in the 1950s on the ground that it did not advance any loan for heavy and basic industrial units in the public sector. It was considered a bias of the Bank against the public sector in India. It is significant to note that over the years the Bank has overcome its earlier ideological hostility to the public sector by giving a loan to Bombay High for the oil exploration and Cochin fertilizer plant in the public sector and Phulpur fertilizer plant which is being established in the cooperative sector.

The leverage exercised by the Bank was limited to the technological, organizational and financial aspects of the economic aid. Steps taken by the Bank have made good effects on the Indian economy. If there was any disagreement, it was at the project level, and this type of disagreement has sometimes led the Bank or the Government of India to drop projects under consideration in the lurch. In this way, it can be argued that there are certain
cases in which the Bank has influenced the technical, financial and organizational aspects of the projects which might not have happened otherwise. This type of influence has been effective in the sense that the working of the particular projects has been improved.

On the one hand the Bank's operations have influenced the working of Indian economy; on the other hand the Bank's con-