

#### IV. Power and Transport

58. *Power:* There has been a rapid increase in the consumption of power in recent years, as the table below specifies :—

##### *Annual Percentage Increase in Sales of Electricity*

Period	Total Sales	Sales to Industries
1950/1955	11.4	12.6
1955/1960-61	13.7	14.8
1961-62	17.8	22.1

Consumption by industries, accounting for nearly 70 per cent of aggregate consumption, has increased more rapidly than total consumption and also faster than increase in industrial production signifying substitution of electricity for other conventional fuels, and relatively faster growth of industries using electricity. As against the annual plan target of increase in power capacity of 600 mw in 1961-62 and 730 mw in 1962-63, actual addition to capacity in the first year of the third plan was 580 mw and in the second year it is expected to be 650 mw, bringing the total generating capacity in the country to 6.9 million kw. The bulk of the increase in power capacity in the second plan period, as in the first two years of the third plan, has occurred in regions other than West Bengal/Bihar. While the aggregate generating capacity increased at the rate of 11.3 per cent per annum in the second plan period, the increase in the West Bengal/Bihar region where the growth of industrial demand can be expected to have been large was only 7.6 per cent per annum. The addition to capacity in 1961-62 also came primarily from Bhakra in Punjab and Rihand in U.P. In the second year of the plan major additions to capacity are expected from Koyna in Maharashtra, Hirakud in Orissa and thermal units in U.P.

59. Since the power shortage thus is primarily a regional shortage, Government have sanctioned additional schemes for quick generation of thermal power in the West Bengal/Bihar region and arrangements have been made for the diversion of surplus power from other States to this region. For instance, parallel operation of the DVC system with the Rihand system has already been accomplished, and a peaking power of 80 mw is being drawn from Rihand to relieve power shortage in the DVC/Bengal/Bihar area. Similarly, arrangements have been made for diverting power from Hirakud. The dates of commissioning of power projects are also being advanced to the extent possible and a central pool of generating sets has been set up with a total capacity of 50 mw to be moved to places where power is needed in emergency. Several of the power projects expected to be completed early in 1963-64 will add about 150 mw of capacity.

60. The Third Plan has set a target of increasing power generating capacity to 12.7 million kw (or more) by 1965-66. The import requirements of most of the power programmes are already covered by aid, and a marked increase in utilisation of aid also occurred during the current year. Additions to power capacity have to be planned on the basis of maximum demand expected on the various power systems. The maximum demand on individual power systems has been increasing faster than the generating capacity; up to a point this is a factor contributing to better utilisation of available capacity, but beyond a point it cannot but strain the individual power systems. While generating capacity has to be located in regions where energy resources are available, demand may be concentrated in other regions. To meet this problem, the possibilities of creating zonal grids linked eventually to an all-India grid, are being explored in consultation with the State Governments. Two expert survey teams, one to undertake power survey and the other for energy survey, have also been set up recently to examine the long-term development of energy resources of the country.

61. *Railways:* As mentioned earlier, the railway development programme has been enlarged to facilitate the movement of coal. Addition to the programme is also envisaged for increasing the capacity for general goods traffic and for advance action for meeting future requirements of coal movement. The following table shows the increase in goods traffic in recent years.

Year	Tons Originating (millions)	Annual percentage increase
1950-51 . . . . .	91.5	..
1955-56 . . . . .	105.8	2.9
1960-61 . . . . .	153.5	7.6
1961-62 . . . . .	160.3	4.7
1962-63 (estimated) . . . . .	175.0	9.2

Against the original third plan target of increase of 60 per cent in goods traffic the actual increase which has occurred in the first two years is about 14 per cent.

62. An important part of the railway development programme consisted of construction of new lines mainly for movement of iron ore to ports, doubling of lines in the traffic-congested sections, acquisition of additional rolling stock, and electrification of the Gomoh-Gaya-Mugalsarai-Kanpur line, a distance of nearly 450 miles, to improve the speed of trains and thereby utilise existing line capacity more effectively. The outlay on the railway programmes in the first two years of the third plan has been of the order of 40 per cent of the initial five-year provision and taking into account the expenditure proposed for the coming year, railways will have spent nearly 75 per cent of the outlay originally proposed for the third plan. Nearly two-thirds of the total outlay on the line capacity works (i.e. doubling of existing lines, improvement in marshalling yard facilities etc.) has been incurred. About 50 per cent of the electrification programme has already been completed. The electrification of the Gomoh-Gaya section was completed in the first year of the third plan and in the second year, the Gaya-Mugalsarai section was commissioned. Work is in progress on the electrification of the rest of the line which, when completed, will help considerably the transport of coal and other goods to destinations "above Mugalsarai". Further progress was made in the construction of new lines in Orissa which aim at connecting the iron ore mines to the port of Visakhapatnam.

63. With the improvement in steel supplies, indigenous production of wagons has increased and the railways have been able to acquire (from domestic production and by way of imports) 12,293 wagons in the first six months of 1962-63 as against 19,114 wagons in the whole of 1961-62. Thus nearly 25 per cent of the programme of wagon acquisition has already been completed. With a view to maximise the use of rolling stock and obtain better turn-round of wagons, the railways have introduced in recent years a system of moving bulk traffic in block trains, not merely for coal traffic but also for other goods traffic. In 1961-62, 11.2 per cent of the broad gauge traffic other than coal and railway stores was moved in block trains as against only 6.4 per cent in 1959-60.