

105. The Plan provides for substantial improvements in the Agriculture, Animal Husbandry, and Forestry Colleges and the research institutions associated with them, and for expanding their facilities to train additional types of specialists (fisheries specialists, for example). In order to meet the emergency needs for large numbers of extension workers, especially in connection with the Village AID programme, we also propose special short training and refresher courses.

106. Additional research stations will be established during the Plan period. The major need in the field of research, however, is to make better use of existing research facilities, by organising well-planned research programmes specifically designed to solve the major problems confronting the villagers in their daily lives. New lines of research need to be opened up, such as research in farm management—determining the best patterns of land use and crop production in different parts of the country, the best size of cultivation units, and the costs and returns of using different types of farm equipment. Provision has been made also for a census of agriculture and livestock.

107. Research in seed improvement or the best ways to use fertiliser or water is fruitless unless the results are made available to the cultivators through extension services. The Plan provides for a substantial increase in the number of extension workers, who will work through the Village AID programme in Village AID areas and under the Departments of Agriculture, Animal Husbandry, and so on, in other areas. It is of vital importance that better training and supervision should be given to extension workers and that their pay and status should be improved.

#### **Co-operatives, rural credit and marketing**

108. There is no doubt that a sound long-term credit programme should be based on the co-operative principle. Successful credit co-operatives must be large enough to afford paid secretaries. Members of the co-operative societies should understand the purpose of the co-operative movement and the business principles upon which it must operate. A start should be made, experimentally, by granting loans on the basis of sound farming plans, to ensure proper use of the borrowed resources. For these reasons very close co-ordination is necessary between the rural credit system and the Village AID and extension organisations.

109. At present large numbers of co-operatives are small and inefficient ; many of them are insolvent, and they can provide only a very small part of the credit requirement of the farmers. It will take a long time to infuse the co-operative spirit, establish more societies, and train the managers and other specialists who are essential for the successful operation of the co-operative societies. During the Plan period a beginning must be made with improvement of credit facilities through co-operative societies. After the provision of credit marketing needs of the agriculturist should be met. The Agricultural Bank should be the centre of initiative and planning for the new rural credit system, and will stimulate and organise the necessary training facilities. The Bank will work closely with the provincial co-operative banks in developing a programme for reviving and extending rural credit co-operatives. It will take some time to accomplish major results, but every effort must be made to ensure the maximum use of efficient co-operatives, and the development of those that can be revived and improved. The Agricultural Bank must try to make its facilities available as rapidly as possible, in particular where no credit agencies exist or present agencies cannot be used. In the immediate future *taccavi* loans should be used more widely than they have been in the past. District officers should be provided with funds and empowered to grant loans, under established policies concerning interest rates and amounts of loans for different purposes. The expanded *taccavi* system cannot be expected to meet more than a part of the need, but it offers a way to help to fill the gap while the permanent co-operative system is being rehabilitated, organised, and expanded.

#### **Land reforms**

110. In East Pakistan work on land reform has already started under the Act of 1950, which provided for eliminating the many intermediaries who had grown up under the Permanent Settlement. The East Pakistan

Government acquired all intermediary rights with effect from the 14th April 1956, as the first step towards a complete re-organisation of the pattern of land ownership and tenancy rights in the Province. According to press reports they had decided to acquire all intermediary rights with effect from 14th April 1956.

111. In West Pakistan, ownership and cultivation of land is governed by the different laws which were in force in the several Provinces and States before the unification of West Pakistan. It is necessary to provide for more uniform ownership and tenancy laws and to move towards an equitable system of rights in the land both to assure maximum production from the land and to improve social justice. It is also necessary to continue and increase the programme of consolidating small fragmented holdings into larger and more economical units.

112. Some additional schemes for the development of agriculture are under preparation in East Pakistan and more should be done in this field, which is so important to the economy of the country. If sound schemes can be prepared, the training of technical personnel expanded sufficiently, and the rate of execution on existing schemes stepped up, the programme should be enlarged, especially in such fields as extension, storage, distribution of manures and fertilisers, training of agricultural technicians, fisheries, and the setting up of co-operatives.

113. The following Table 10 shows the estimated cost of the different programmes under the general heading of Agriculture :

TABLE 10

*Public expenditure on agricultural development, 1955—60*  
(Figures can be read in millions by removing decimals)

							(Crore rupees)
<b>Field crops</b>							
Crop breeding and seed schemes	...	...	...	...	...	...	8.6
Manures and fertilisers	...	...	...	...	...	...	20.0
Colonisation	...	...	...	...	...	...	11.5
Marketing and storage	...	...	...	...	...	...	5.9
Education, research and extension	...	...	...	...	...	...	5.2
Other	...	...	...	...	...	...	31.8
						Sub-total	83.0
<b>Fisheries</b>	...	...	...	...	...	...	3.5
<b>Animal husbandry—</b>							
Breeding	...	...	...	...	...	...	3.7
Disease control	...	...	...	...	...	...	1.7
Education and research	...	...	...	...	...	...	2.4
Other	...	...	...	...	...	...	3.6
						Sub-total	11.4

Range management and soil conservation	...	...	...	...	...	...	1.8
Forestry—							
Extraction and utilisation	...	...	...	...	...	...	3.4
Education and research	...	...	...	...	...	...	2.1
Afforestation and regeneration	...	...	...	...	...	...	3.0
Other	...	...	...	...	...	...	0.5
					Sub-total	...	9.0
Rural credit	...	...	...	...	...	...	10.7
Consolidation of land holdings	...	...	...	...	...	...	1.2
					Total	...	120.6

### Water and Power Development

114. A large programme of water and power resources development was under way at the beginning of the Plan period. The Plan provides for continuing the programme in West Pakistan, and a rapid increase in the size of the programme in East Pakistan.

115. Water resources must be developed in the most efficient manner to serve all possible uses—irrigation, flood regulation and drainage, hydro-electric power production, transport, and others. In addition, hydro-electric and thermal power stations must be planned to complement each other in an integrated programme of power supply. In order to accomplish these purposes, detailed surveys and comprehensive plans must be made to ensure the greatest benefits at the least cost, and to promote orderly and systematic development. The Plan places great emphasis upon general investigation of water and power resources, which are necessary in order to formulate long-range, comprehensive development programmes. Effective and unified organisations for water and power development are necessary to design, construct, and operate major interdependent works of the proposed systems.

116. Programmes for water and power development must be devised to take account of the natural conditions of different regions. There are three such natural regions in Pakistan : the humid region of East Pakistan ; the area drained by the River Indus and its tributaries and the adjoining tracts in West Pakistan ; and the area drained by the coastal tributaries and desert streams, comprising most of the Quetta and Kalat Divisions, and adjoining tracts.

#### East Pakistan

117. The major purposes to be served during the Plan period in East Pakistan are as follows :

- (a) To provide irrigation water to large areas for double cropping and increasing the production of single crops ;
- (b) To increase agricultural production in many areas through local drainage and flood regulation schemes ;
- (c) To prepare plans for and start on a comprehensive programme of new methods and major works for increasing agricultural productivity and reducing flood damage ;
- (d) To protect large areas from the saline waters of the tides ;
- (e) To improve waterways for inland water transport ; and
- (f) To triple the power supply available at the beginning of the Plan period.

118. The delta-building rivers of East Pakistan affect all economic development and activities in the region—agricultural and industrial production, transport and communications, and every aspect of rural and urban life

The effects may be beneficial if development programmes are planned to take into account the natural characteristics of the rivers ; the effects will be destructive if those characteristics are violated or ignored. A beginning has been made in planning water development schemes which are consistent with the regimen of the rivers and designed to serve as many useful purposes as possible. Two major multi-purpose projects, the Ganges-Kobadak and Karnafuli, are under way and will be carried forward during the Plan period. Two others, the Teesta barrage and the comprehensive drainage scheme Faridpur are planned to start before 1960. The principle, of the Ganges-Kobadak scheme in particular appear to offer promise of application to widespread areas in East Pakistan progressively over a long period of years ; the Plan provides for necessary surveys and investigations to prepare additional schemes of this type.

119. Recurring major floods present very large and urgent problems in East Pakistan. In addition to the large number of schemes included in the Plan which will improve drainage and diminish the effects of floods in some areas, major works and protective devices may be required to prevent loss of life and to reduce damage to property. Investigations are now in progress to devise methods and works for reducing flood hazards ; such schemes as are found practical and feasible as part of the water resources development programme should be undertaken during the Plan period in addition to those already proposed. The likelihood that additional flood regulation schemes will be prepared and approved is one of the major reasons for proposing the large reserve for East Pakistan development schemes not yet planned in detail.

120. Large schemes require considerable time for completion. In the meantime, it is essential that the existing productive capacity should be maintained, and further deterioration of land arrested. We propose that this should be accomplished by continuing the practice of accelerating drainage at the end of the monsoon through the construction of drainage ways. Such schemes are relatively small, and can generally be undertaken by those directly benefited. Technical services, materials, and essential equipment not available locally can be supplied by the Government. A substantial number of small drainage schemes are included in the Plan, and additional ones are under investigation. Those that prove sound can be carried out by using the reserve.

121. Industrial demand for electric power has risen rapidly since independence—more rapidly than supplies have been expanded—and will continue to rise. Pumping water from low river flows for irrigation during the dry season, and pumping water for drainage during and after the wet season, may form a significant part of future power loads. The Plan provides for installing enough power capacity to overtake expected demand by 1960. The bulk of the additional power will come from the Karnafuli hydro-electric power plant, and from steam plants at Sidhirganj near Dacca and at Khulna.

122. Of the total cultivated land in the region, about 500,000 acres of crops were served in 1955 by irrigation schemes, and 800,000 acres by organised flood regulation and drainage works. Table 11 shows the expected results from developments included in the Plan.

TABLE 11  
*Acreege affected by East Pakistan development schemes, 1955—60*  
(Figures can be read in thousands by removing decimals)

						During 1955—60	Total ultimate results
Area served by irrigation projects :						(Lakh acres)	
Additional areas of crops irrigated	...	...	...	...	...	1.00	14.25
Improvement of existing cropped area by irrigation	...	...	...	...	...	2.00	42.65
Total area affected						3.00	56.90
Area benefited by flood regulation and drainage projects						16.19	24.76

123. The total area of crops irrigated, therefore, will be nearly 1 million (10 lakh) acres in 1960, and 6 million (60 lakh) acres when schemes included in the Plan are completed. The area benefited by flood regulation and drainage works will be over 2 million (20 lakh) acres in 1960, and nearly 3 million (30 lakh) acres when schemes included in the Plan are completed. Table 12 shows the expected results from power developments included in the Plan.

TABLE 12

*Power capacity to be installed in East Pakistan through development schemes, 1955-60*

		(Megawatts)				
		Capacity existing in 1955	Additions during 1955-60	Retirements during 1955-60	Net installed capacity in 1960	Total ultimate results
<b>Public supplies :</b>						
Hydro	...	...	80.0	...	80.0	160.0
Thermal	...	26.0	89.5	5.0	110.5	89.5
Industrial plants	...	41.0	...	16.0	25.0	...
Total		67.0	169.5	21.0	215.5	249.5

#### **River Indus and Tributaries**

124. The major purposes to be served during the Plan period in this area are :

- (a) To begin the regulation of the uncontrolled flows of the Indus river and its tributaries for beneficial use, and for the reduction of flood damage ;
- (b) To improve the water supply to irrigated land ;
- (c) To provide improved water supply for irrigation of lands now being cultivated ;
- (d) To provide irrigation water for lands which are now uncultivated ;
- (e) Reclaim areas now water-logged and saline ; and
- (f) To double the power supply available at the beginning of the Plan period.

125. Successful and continued agricultural production in the area depends on a satisfactory solution of the water supply problem. In the absence of storage facilities, the limit to cultivation is set by the low point in water supply during the critical irrigation periods. Additional water can be obtained only by the storage, regulation, and conservation of surface water, and the systematic development of underground sources. The future development of irrigation on a large scale will depend on the storage of high river flows. The Plan includes provision for the investigation and selection of suitable reservoir sites, the preparation of detailed plans and the starting of construction of major multi-purpose reservoirs, including the very large Mangla scheme.

126. To provide additional supplies for reclamation and improvement of existing irrigation, it is necessary that the Indus and its tributaries should be inter-connected. By the end of the Plan period, the Chenab and Ravi rivers will have been linked to the Sutlej river and work will have started on the Jhelum-Chenab link.

127. In the absence of regular and adequate rainfall, and of sufficient and suitably distributed surface water supplies, it is necessary to mobilise ever-increasing quantities of ground water for primary and supplementary

irrigation. The Plan provides for an intensive and systematic investigation of ground water potential, and also for a programme of ground water development which can reasonably be achieved by 1960, taking into account the serious physical, technical and economic limitations.

128. Drainage problems inevitably accompany irrigation development. Lack of drainage, if not remedied, may ultimately upset the agricultural economy of the region. Considerable research and investigation are necessary to evolve techniques of reclamation and drainage suitable to each particular area. The Plan provides for continuing and enlarging pilot reclamation schemes, and for extending proven methods to other affected areas. It is likely that during the Plan period the work accomplished in some areas will suffice only to offset progressive deterioration of land from salinity and water-logging in other areas. If progress in developing reclamation methods is as rapid as we hope it will be, it should be possible in later years, particularly when Mangla is completed, to accomplish considerably larger results.

129. Two large multi-purpose schemes are included in the Plan—Warsak and Mangla. Three major irrigation projects are included—Ghulam Mohammad, Taunsa, and Gudu barrages—as well as a large number of smaller schemes. Power demands for industrial and other purposes have risen rapidly since independence and will continue to rise during the Plan period. Reclamation requirements and the need for additional water supplies have led to plans for exploiting ground water resources by means of electrically-driven pumps for tube-wells. The Plan provides for integrated systems of power generation and transmission in West Pakistan to give more power at a smaller cost. The power development programme is designed to provide sufficient power for all essential needs by 1960. The bulk of the additional power will come from the Warsak hydro-electric plant, and from steam plants using Sui gas for fuel in the lower Punjab area and at Karachi. Power from the Mangla project will become available after 1960.

130. The total area of irrigated crops in 1955 was about 22 million (2·2 crore) acres. Table 13 shows the expected results from irrigation developments included in the Plan.

TABLE 13

*Acreage affected by Indus Basin development schemes, 1955-60*

(Figures can be read in thousands by removing decimals)

	During 1955-60	Total ultimate results
(Lakh acres)		
New areas brought under cultivation	14·53	42·60
Old areas given improved water supply and area reclaimed from water logging and salinity	40·44	87·60
Total area affected	54·97	130·20

131. The figures in this Table do not include the development of irrigation, during or after the Plan period on the schemes completed before independence, such as the Sukkur barrage, because the information is not now available. But apart from such additions the total area of irrigated crops will exceed 24 million (2·4 crore) acres in 1960, and 26 million (2·6 crore) acres when schemes included in the Plan are completed. Table 14 shows the expected installed capacity resulting from power developments included in the Plan.

TABLE 14

*Power capacity to be installed in the Indus Basin through development schemes, 1955-60*

(Megawatts)

	Capacity existing in 1955	Additions during 1955-60	Retirements during 1955-60	Net installed capacity in 1960	Total ultimate results
Public supplies :					
Hydro ... ..	62.7	176.0	...	238.7	500.0
Thermal ... ..	98.0	250.7	40.0	308.7	340.7
Industrial plants ... ..	51.0	47.0	12.0	86.0	47.0
Total ... ..	211.7	473.7	52.0	633.4	887.7

132. With respect to the Indus River and its tributaries it should be pointed out that India has claimed that it is entitled to withdraw supplies traditionally used or earmarked for projects in Pakistan. This has given rise to a water dispute and efforts are being made to solve it through the good offices of the International Bank for Reconstruction and Development. Depending upon the outcome of these efforts, the present Plan will be revised as necessary. Negotiations are proceeding on the basis that the costs necessary to implement a settlement of the dispute will be shared in proportion to the benefits received by each country. As for the apportionment of expenditures incurred under the present Plan the matter would be considered in due course.

#### Coastal Tributaries and Desert Streams Region

133. This area is the least populated and developed in the whole of Pakistan. The Plan provides for a rapid expansion of water and power development, but the total results compared with other regions will be small, because the start is from such a low point. Investigation of further possibilities has, therefore, been given high priority as the key to further development. The principal purposes to be served by the programme during the Plan period are :

- (a) To improve water supplies to lands now irrigated ;
- (b) To provide irrigation water to new lands ; and
- (c) To expand the power supply.

134. The perennial stream flows in the region are limited. The greatest possibility for the development of water resources lies in the conversion of short-term flood discharges into useable flows continuing over long periods. The Plan provides for the construction of a number of simple diversion structures, detention reservoirs, and canals. The scope for the construction of larger projects in this area is limited. There are, however, a few coastal tributaries which offer opportunities for major irrigation development. The Plan makes provision for exploratory work on two of the big schemes, and for building control structures on some of the major streams.

135. Ground water is destined to play an important role in the future development of this region. Efficient methods of recovering ground water at a reasonable cost, in tracts where cheap power is not available, have yet to be explored. The programme provides for the exploration and development of ground waters by means of open and tube wells. The Plan also includes experimental schemes for replenishing the underground sources of water supply by diverting flood waters.

136. Because of the scarcity of water, development must proceed on the basis of the most economical use of existing supplies. The Plan provides for conservation of water by reducing transport losses in the canal system, through lining channels in sections of greatest loss, and by devising methods for improving the efficiency of karezes and for controlling flowing springs.

137. The total area irrigated in the region by all methods was about 400,000 acres per year before the Plan period, and the total installed power capacity at that time was about 3,000 k. w., all thermal. Table 15 shows the expected results from the projects included in the Plan.

TABLE 15

*Expected results from Coastal Tributaries and Desert Streams Region development schemes, 1955-60.*

	During 1955-60	Total ultimate results
Area served by irrigation facilities (acres) ... ..	186,000	907,000
Installed power capacity (kw) ... ..	...	5,000

The total irrigated area will, therefore, be about 186,000 acres in 1960, and about 1.3 million (13 lakh) acres when the schemes included in the Plan are completed.

#### Atomic energy

138. The advent of atomic energy marks the beginning of a new chapter in the history of mankind. Apart from its potential destructive uses, atomic energy has numerous peaceful uses. Among these the most important are the generation of power ; medical diagnosis, therapy and research ; agricultural studies ; physical and chemical research, industry, and the preservation and processing of foods and so on.

139. The Government of Pakistan have set up an Atomic Energy Council consisting of a Governing Body and a Commission in order to study and exploit the possibilities of the use of the atomic energy in this country. Its functions will include the procurement, supply, manufacture and disposal of radio-active substances, carrying out surveys of the radio-active minerals, assessing the country's requirements and taking necessary steps for their fulfilment, and the planning and establishment of atomic energy and nuclear research institutes at suitable centres. We understand that progress is being accelerated in several ways. A training programme is in hand and several of our men have received training abroad. Exploration is underway for radio-active mineral. Necessary steps are being taken and a site chosen for the installation of the first research reactor.

140. The programme for the development and use of atomic energy prepared by the Atomic Energy Commission was received by us too late for inclusion in the Plan. It is now under consideration of the Board. This programme as finalised will be partly or wholly accommodated in the annual development programmes.

141. The estimated costs of the water and power development programmes for the whole of Pakistan during the Plan period are shown in Table 16.



TABLE 16

*Public expenditure on water and power development, 1955-60.*

(Figures can be read in millions by removing decimals)

										(crore rupees)
<b>General investigations</b>										
Ground water	...	...	...	...	...	...	...	...	...	5.0
Other	...	...	...	...	...	...	...	...	...	5.8
									<b>Sub-total</b>	<b>10.8</b>
<b>Multi-purpose development</b>										
Karnafuli	...	...	...	...	...	...	...	...	...	21.7
Warsak	...	...	...	...	...	...	...	...	...	23.6
Teesta	...	...	...	...	...	...	...	...	...	5.0
Ganges Kobadak	...	...	...	...	...	...	...	...	...	8.5
Mangla	...	...	...	...	...	...	...	...	...	6.0
Other	...	...	...	...	...	...	...	...	...	8.5
									<b>Sub-total</b>	<b>73.3</b>
<b>Irrigation</b>										
Taunsa Barrage	...	...	...	...	...	...	...	...	...	12.7
Gudu Barrage	...	...	...	...	...	...	...	...	...	15.0
Ghulam Mohammad barrage	...	...	...	...	...	...	...	...	...	12.7
Link canals	...	...	...	...	...	...	...	...	...	8.7
Other	...	...	...	...	...	...	...	...	...	29.7
									<b>Sub-total</b>	<b>78.8</b>
<b>Flood regulation and drainage</b>										
Ganges Flushing-cum-drainage	...	...	...	...	...	...	...	...	...	3.7
Other	...	...	...	...	...	...	...	...	...	16.0
									<b>Sub-total</b>	<b>19.7</b>
<b>Power</b>										
Sidhirganj thermal	...	...	...	...	...	...	...	...	...	3.2
*Karachi electric supply	...	...	...	...	...	...	...	...	...	6.2
West Pakistan H.T. Grid	...	...	...	...	...	...	...	...	...	8.0
Natural Gas power station, Multan	...	...	...	...	...	...	...	...	...	11.0
Hyderabad and Sukkur thermal systems	...	...	...	...	...	...	...	...	...	4.1
East Pakistan transmission and distribution schemes	...	...	...	...	...	...	...	...	...	4.8
Other	...	...	...	...	...	...	...	...	...	19.8
									<b>Sub-total</b>	<b>57.1</b>
									<b>Total</b>	<b>239.7</b>
									<b>Reserve</b>	<b>30.0</b>
									<b>Grand Total</b>	<b>269.7</b>

\*In addition to this amount, about Rs. 7.7 crore are provided against this scheme as private investment.

Since the allocation of costs on multi-purpose schemes cannot be done exactly, we can only estimate very roughly that about Rs. 1,100 million (110 crore) of this expenditure is for power, something less than Rs. 1,400 million (140 crore) for irrigation, drainage, and flood regulation and the remainder for other purposes.

**Industry**

142. The principal method of increasing national output and raising standards of living, in the long run, must be that of industrialisation. The Plan, accordingly, gives industry a priority second only to that given to agriculture.

143. Output may be increased, first, by making better use of present plants. Plants that now work one or two shifts should work two or three. An adequate supply of imported raw materials and replacement parts should be assured. Equipment should be properly maintained. Methods of management should be improved. The numbers of skilled workmen, supervisors, and managers should be increased by educational programmes. More effort should be devoted to applied industrial research.

144. Output may also be increased by investing in the modernisation of existing plants, in auxiliary equipment to balance existing operations, in further expansion of existing firms, in the establishment of new firms in existing industries, and in the creation of new industries. Of the new investment proposed by the Plan, approximately 30 per cent. is in the field of industry.

145. Since resources are inadequate to permit all of the industrial investments that would be desirable, choices have had to be made. The primary factor to be considered in making such choices, of necessity, has been that of prospective foreign exchange benefits, in the form either of the rate of exchange savings to be realised by substituting domestic production for imports, or of the rate of exchange earnings to be obtained by producing for export. In addition, consideration has been given to the comparative profitability of different investments and to their comparative contributions to national income. Recognition has been given, too, to the desirability of promoting the use of indigenous raw materials, and to the need for maintaining opportunities for employment, particularly in the case of small industries.

146. The Government promotes industrial development by itself engaging in productive undertakings. Through the Pakistan Industrial Development Corporation, it builds new plants, establishes them as going concerns, and sells them to private owners. It is also the policy of Government to encourage, assist, and guide private enterprise. It does so by providing credit, granting tax concessions, giving tariff protection, setting up industrial estates, and inviting foreign investment. In addition, the Government controls private development by granting or denying the right to start new enterprises, to issue securities, and to import capital equipment and raw materials.

147. The Plan sets a target of Rs. 300 crore for added investments in the capacity of large-scale industry. Even when allowance is made for probable short-falls, this will more than double the investment that existed in 1955. Of the 300 crores, nearly 160 would come from private investors. More than 140 crores would take the form of public investment, principally through the P.I.D.C. It is expected, however, that a large part of the public investment will ultimately pass into private hands as the P.I.D.C. disposes of its holdings in seasoned enterprises and turns its attention to new undertakings.

148. Of the public investment definitely planned, Rs. 74 crore is assigned to East Pakistan, Rs. 39 crore to West Pakistan, and Rs. 9 crore to Karachi, giving 60 per cent. of new public investment in large-scale industry to East Pakistan, 33 per cent. to West Pakistan, and 8 per cent. to Karachi. In addition, further provision has been made for industrial development in East Pakistan by setting aside another Rs. 17 crore for suggested undertakings, pending the preparation of specific schemes. This brings the total provision for East Pakistan to more than Rs. 91 crore, or 65 per cent. of the total for the country as a whole, leaving West Pakistan with 28 per cent. and Karachi with 7 per cent.

149. Realisation of the Plan will change the present pattern of the nation's large-scale industry. It will leave the cotton textile industry at the top of the list, in terms of capital invested, but will increase the relative importance of fertiliser production, sugar refining, gas transmission, cement manufacturing, and ship-building.

It will increase the capacity of the jute goods industry by three quarters. It will double capacity in sugar, cigarettes, and cement, and quadruple capacity in ship-building. It will provide capacity where none existed before for the production of fertiliser, card and strawboard, newsprint, and rayon and cellophane.

150. For the development of fuels and minerals, the Plan provides a total of Rs. 47 crore. Of this, Rs. 35 crore is private investment and Rs. 12 crore public. The two major items are Rs. 42 crore for oil and gas prospecting, of which Rs. 34 crore is private and Rs. 8 crore public, and Rs. 3 crore for the expansion of coal production, of which one third is private and two-thirds public. The latter provision will allow the output of coal to be more than doubled, increasing capacity by approximately 6,00,000 tons per year.

151. The Plan provides for a large increase in the size of the existing Geological Survey and for the establishment of a Minerals Development Corporation by the Government of West Pakistan. It proposes to increase the production of chromite by 40 per cent, and provides for the investigation of other minerals, such as magnetite and antimony in Chitral and lignite in East Pakistan. It also recommends the revision of existing mining laws and regulations and the training of mining personnel.

152. The Plan calls for an additional investment of Rs. 17 crore in small-scale and cottage industry. Of this, nearly three-fourths would be provided by private investors and more than a fourth by the Central and Provincial Governments. A Small Industries Corporation has been established at the Centre to import raw materials for distribution to small producers and to export their products for sale abroad. The Corporation has also been given power, by law, to make loans for small industry, though no funds have been provided for the purpose. Similar corporations are to be established by the Governments of the Provinces. These bodies are to distribute raw materials to small industries and to assist in marketing their finished products. They are also to establish model units and demonstration and training centres, and to set up common facilities to prepare materials, to complete the finishing of semi-finished goods, and to meet other common needs of small producers. A similar function is to be fulfilled by the Central Small Industries Corporation on behalf of small industries in Karachi. A toolshop and training centre to serve small metals industries has been established by the Central Ministry of Industries in Lahore; another is to be set up in the near future in Dacca. Further measures to aid small industry are proposed in the Plan. These include the provision of loan funds, the re-equipment of a substantial part of the handloom industry in order to increase its efficiency, the inauguration of research on markets and design for the products of small industry, and on materials, equipment, and production techniques, studies of the particular problems of individual industries, and the provision of advisory services.

153. The development programme for both large and small-scale industry may be expected to increase the output of all industry from about 750 crore rupees in 1954 to about 1,300 crore in 1960. The programme for large-scale industry alone should increase direct employment by about 2,35,000 jobs. It should result in a saving, by 1960, of more than 50 crore rupees a year in foreign exchange.

### Transport and Communications

154. There is a very marked contrast between the transport problems of East and West Pakistan. East Pakistan depends mainly on inland waterways, with shipping at present privately owned. West Pakistan relies mainly on the railways, which are publicly owned. Both need, though in different degrees, better roads; both need port improvements.

#### Railways

155. The railways could not be properly maintained during the depression of the nineteen thirties and World War II, and the arrears of replacements and repairs have only been partially overtaken since partition. The railways programme during the Plan period is, therefore, mainly a programme of rehabilitation, but the effect should be substantially to increase their transport capacity.