RESTRICTED

Report No. AS-85a

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

DEVELOPMENT PROGRAMING AND ECONOMIC CONDITIONS IN PAKISTAN

May 8, 1961

Department of Operations
South Asia and Middle East

CURRENCY EQUIVALENTS

4.762 rupees	=	U.S. $1.00
1 rupee	=	U.S. $0.21
1 million rupees	=	U.S. $210,000
1 billion rupees	=	U.S. $210 million
1 crore rupees	=	10 million rupees
	=	U.S. $2.1 million

TABLE OF CONTENTS

BASIC DATA

AREA		365,907 sq. miles
West Pakistan	311,022	
East Pakistan	54,885	

POPULATION (January 1961 census):

West Pakistan	43.0 million (136 per sq. mile)
East Pakistan	50.8 million (925 per sq. mile)

Apparent rate of population growth 1951-61 - 2% p.a.

GROSS NATIONAL PRODUCT 1959/60			Rs. 25.4 billion ($ 5.3 billion)
of which:			
Agriculture		55%	
Manufacturing		14%	
Large-Scale	9%		
Small-Scale	5%		
Wholesale and Retail Trade		9%	
Transport/Communications		3%	
Government administration		6%	
Rental income		5%	
Other services		8%	
INCOME PER HEAD 1959/60			Rs. 270 ($ 57)
GROSS NATIONAL EXPENDITURE 1959/60			Rs. 26.6 billion* ($5.6 billion)
of which (approx.):			
Public investment		6%	
Private investment		4%	
Public consumption		9%	
Private consumption		81%	

* Includes Foreign Aid, loans and investments, and drawings on Foreign Exchange Reserves.

GOVERNMENT FINANCE (Consolidated Budget 1960/61)

Total Revenue Receipts		Rs. 3.09 billion ($ 0.65 billion)
of which:		
Railways/PTT	3%	
Irrigation	5%	

Other non-tax	31%	
Tax revenue	61%	
Total Revenue Expenditure		Rs. 2.90 billion ($ 0.61 billion)
of which:		
Debt service	4%	
Civil Administration	17%	
Defense	34%	
Other expenditures	45%	
Total Capital Expenditure		Rs. 1.97 billion ($ 0.42 billion)

FOREIGN TRADE AND PAYMENTS 1959/60

Receipts from exports f.o.b.		Rs. 1.76 billion ($ 0.36 billion)
of which for:		
Raw jute	41%	
Raw cotton	9%	
Jute goods	12%	
Cotton goods	12%	
Wool	4%	
Hides and Skins	5%	
Tea	3%	
Other exports	14%	
Payments for imports c.i.f.		Rs. 2.46 billion ($ 0.51 billion)
of which:		
Foodgrains	15%	
Other food & drink/tobacco	3%	
Machinery	22%	
Iron/steel	9%	
Non-ferrous metal	2%	
Chemicals	4%	
Pharmacenticals	3%	
Coal	2%	
Petroleum	10%	
Electric apparatus	3%	
Vehicles	6%	
Other imports	21%	
Net invisible payments		Rs. 0.15 billion ($ 0.03 billion)
Foreign grants and loans		Rs. 1.03 billion ($ 0.22 billion)

FOREIGN ASSETS (January 31, 1961)

Gold, dollar and sterling reserves	Rs. 1.38 billion ($ 0.29 billion)

PUBLIC DEBT OF CENTRAL AND PROVINCIAL GOVERNMENTS (January 31, 1961)

Internal debt		Rs. 5.21 billion ($ 1.10 billion)
Bonds	Rs. 3.21 billion	
Treasury bills	Rs. 2.01 billion	
External debt, December 31, 1961 (Outstanding, plus undisbursed)		$380 million equivalent

SUMMARY AND CONCLUSIONS

Part I

i. During the financial year 1959/60 and the second half of 1960 Pakistan's economy continued to benefit from the general climate of confidence which has been prevalent since the new regime took over in October 1958. The Government's over-all economic policy has been one of successively loosening restrictions and favoring of the development of private enterprise. Controls on imported goods have been gradually relaxed and a number of domestic price controls removed. These policies are reflected in the monetary picture. Bank credit to the private sector has become the primary factor in monetary expansion in Pakistan; this expansion, however, has been very largely of a nature which would not by itself generate inflation, as it followed a considerable expansion in the volume of transactions. As regards Government finance there is no reason to believe that any serious disequilibrium is in sight. Revised estimates of the balance of payments for 1960/61 indicate an increase of 9.3% over the original Plan targets for foreign exchange earnings and one of 15.8% for non-development imports. The current account deficit (excluding development imports) for 1960/61 is thus expected to be larger by Rs. 160 million ($34 million) than originally estimated - which is not a matter of serious concern since the foreign exchange position is fairly comfortable. Foreign exchange reserves were $272 million at the end of December 1960 and $289 million at the end of January 1961, compared with $258 million at the end of 1959 and $161 million at the end of 1958.

ii. The Second Five Year Plan has been revised upwards from its original over-all size of Rs. 19,000 million ($3,992 million) to Rs. 23,000 million ($4,832 million). The entire increase is spread over the remaining four years of the Plan; the increase of expenditures during the four years is 25% of the original estimates for the same years. However, this revision of the Plan cannot be regarded as final, since there are some important development activities which are seriously contemplated but are not yet incorporated in the Plan. The situation must therefore be regarded as still fluid and the general Plan magnitudes presented in this report are probably not final.

iii. The direct costs of the Indus Basin Settlement Plan Works which are reimbursable from the Indus Basin Development Fund place no financial burden on Pakistan. The non-reimbursable Settlement Plan costs, which must be met by Pakistan, are additional to the enlarged financial requirements of the Second Plan. However, it appears that these will be relatively small. According to the tentative estimates by WAPDA they would amount to Rs. 330 million ($69 million) during the Plan period.

iv. The Planning Commission attributes the increase in the cost of the Plan to a rise in prices over the 1959 level, the lack for many projects of detailed financial and engineering studies when the original Plan was formulated, a somewhat larger carryover of expenditures from the First Plan

than originally assumed, the addition of certain expenditures on facilities in support of the Indus Basin Settlement Works which were not included in the original Plan, and finally the need to expand the scope of or accelerate expenditures on some important projects. On the basis of discussions with executing agencies in Pakistan and of comparisons between contemporary and earlier project presentations, the Mission formed the opinion that at least one-half the cost increase was due to the enlargement of the physical content of the Plan. This means that for the remaining four years the Plans's physical content has been increased about 13%.

v. In public statements, Government spokesmen have pointed to the results of the January 1961 population census as an important factor justifying an increase in the size of the Plan. This census revealed that the enumerated population of 93.8 million was 4.2 million larger than previously estimated. It now appears that population may be about 101.5 million in January 1965, approximately 5.4 million, or about 5.5%, larger than was assumed in the original Plan. In consequence, if the original Plan targets were achieved, the growth in per capita income during the Plan period would now amount to 8.5% instead of the 10% aimed at in the original Plan.

vi. It is not possible for the Mission with the information at present at its disposal to express a firm judgment regarding the various justifications offered for the recent upward revisions in the costs of the Second Plan. The revisions were continued after the Mission left Pakistan and it was unable in many cases to obtain detailed information on specific items or categories. Moreover, it seems likely that further revision will be made.

vii. The foreign exchange component of the Plan is now estimated to have risen from Rs. 6,500 million ($1,366 million) to Rs. 8,450 million ($1,775 million) - an increase of about 30% compared with an increase in the total cost of the Plan of 21%. The greater increase in the foreign exchange component than in total cost is attributable mainly to the fact that the relatively capital-intensive sectors of water and power, industry and transport have been increased more than other less capital-intensive sectors.

viii. At the same time the requirements of maintenance imports during the Plan period is estimated to have risen from Rs. 1.5 billion ($315 million) to Rs. 2.5 billion ($525 million). The Mission believes that this increase of estimated requirements for maintenance imports is reasonable. Indeed, the rate of expansion in the industrial sector suggests that the requirements for imported raw materials, fuels and spare parts may be greater than at present projected.

ix. The Mission has no serious doubt that it would be possible to raise the domestic financial resources required for the revised Plan, provided the public sector realizes revenue surpluses on the scale now contemplated. The proviso is highly dependent on the receipt of increased

commodity aid, since the higher receipts of customs duties and sales tax are partly predicated on this assumption.

x. The Mission does, however, have some doubts about Pakistan's ability to implement a Plan of significantly increased physical size, particularly in some sectors. Shortages of skilled and experienced personnel are apparent in practically all sectors including private industry. It should also not be forgotten that the Indus Basin Settlement Plan Works will simultaneously be making demands upon available skilled labor. It is true that the annual growth in Plan expenditures means that the period of greatest technical and administrative strain falls in the later years rather than immediately. By then, Pakistan should possess an enlarged endowment of technical and administrative skills. However, the original Plan already incorporated progressive annual increases in expenditures and the revision has accelerated these increases, making the need for training even more immediate.

xi. Taking all factors into account, the Mission's general conclusion is that it cannot at this time endorse the revised Plan, aspects of which it is not difficult to criticize. On the other hand, the Mission is aware of the vital need for a massive economic development effort in Pakistan. Its misgivings are not about this need but about the desirability of some of the proposals now being made and the feasibility of carrying some of them out on the scale proposed at the present time.

xii. In reaching this general conclusion the Mission has not overlooked the fact that since October 1958 the authorities have consistently followed sound financial and economic policies which are resulting in a considerable stimulus to economic growth in both the public and the private sector. The Mission's concern is not with what might be called the daily conduct of general policies, but with the scale and to some extent the content of recent longer-range planning. The Mission is well aware of the notable economic progress Pakistan has achieved in the past; the more detailed comments or criticisms which appear in Part II of this report are not intended to diminish acknowledgment of that progress, but to point to obstacles the removal of which would accelerate economic growth.

xiii. Pakistan's short-range economic prospects are reasonably good. The steps taken during the past year to reduce Government controls affecting the private sector can be expected to have beneficial effects. The liberalization of imports should permit better utilization of existing industrial capacity, while current export policies should continue to encourage non-traditional exports.

xiv. As regards the longer range, it can be said that Pakistan has a natural resource base capable of supporting a higher standard of living. It is technically feasible to reach the Plan targets in agriculture if the program envisaged in the Plan is effectively carried out. The Mission has, however, serious reservations on this last point, but vigorous implementation of the reforms in hand and of the principal recommendations of the Food and

Agriculture Commission together with a concentration on immediate objectives would do much to remove those reservations. It also appears that the industrial targets for the Second Plan could be exceeded without great difficulty. Desirable as this may be in itself, however, the Mission sees the possibility of subsequent difficulties in supplying industry with its expanded requirements for imported raw materials and spare parts.

xv. Given the relatively small increase which is expected in foreign exchange earnings, it is clear that Pakistan cannot simultaneously supply a considerably enlarged industrial capacity with its import requirements and also secure the imports of investment goods needed for further economic growth from her own exchange resources alone. It cannot be expected that the Pakistan economy will reach the stage of self-supporting growth by the end of the Second Plan. Foreign aid in substantial amounts is likely to be required for a considerable time.

xvi. Nevertheless, the spread of general education and specialized training and the enlargement of the cadre of persons having medium and higher technical and administrative skills cannot fail to have considerable impact on the levels of output and income. The Pakistan people are shrewd and hardworking, and some have already shown themselves capable of effectively adopting new methods.

Part II

xvii. In agriculture, performance has been somewhat uneven but has shown an encouraging rate of acceleration in each of the last three years. The Mission feels that rather more progress was made in terms of production during the First Plan period than is generally conceeded. The Second Five Year Plan starts from this improved base and with the advantage of considerable deferred benefits from the accelerating rate of input during the last two years and a promising, if slow, upward trend in production.

xviii. The Second Plan targets in agriculture give highest priority to attaining self-sufficiency in foodgrains. The Mission's view is that the Plan's production targets are attainable, and would be attained or exceeded if the program as envisaged in the Plan were effectively carried out. It is on this last and vital point that the Mission has serious reservations. The newly established Agriculture Development Corporations will no doubt be able to make a great contribution in this direction. We would strongly urge that their immediate objectives should be heavily weighted in favor of the supply services and the firm management of colonization and development of one or two of the more promising areas, while their other work should be applied to a limited range of priorities (seed, fertilizer, water use and better husbandry). If this could be done, the urgent task of raising production to the target levels should be achieved, and the longer term and more obstinate development projects could then be tackled from a better base.

xix. The capacity for carrying out water and power development projects has been substantially increased with the creation of autonomous Water and

Power Development Authorities, one in each Wing. The sharp increase in expenditures during the past two years indicates that a program of the size originally proposed under the Second Plan would have been feasible. However, the much higher expenditures now projected create some doubt whether the program can be fully carried out even with large-scale employment of outside technical, administrative and managerial talent.

xx. In West Pakistan, expenditures are largely for completion of projects which are already under way. Only one-third of total expenditures are for new projects, almost all of which consist of drainage, reclamation and tubewell projects designed to meet the pressing problem of waterlogging and salinity. As a general principle, the Mission favors giving priority to these projects which can be expected to yield quicker results. This would call for concentration on these on-going projects which are nearing completion, deferring colonization and land development on newer projects, and drastically reducing further developmment of marginal lands. The program for controlling waterlogging and salinity through drainage, tubewells and land reclamation deals primarily with existing irrigation systems and can be expected to give relatively quick benefits. In east Pakistan, the Plan includes a number of large-scale irrigation developments of the type which in the past have proved to be slow maturing, and should probably be deferred until the Third Plan in order to permit concentration on quicker maturing projects and to enable more adequate preparation.

xxi. In the industrial sector, production in large and medium scale industry rose by more than 80% between 1954 and 1959, while the Plan target was for a rise of only 65%. Although the Second Plan started only in July 1960, there is already sufficient evidence available to justify the conclusion that the industrial part will be over-fulfilled, possibly by a substantial margin. The original industrial targets appear to the Mission to have been reasonable, but the enlarged targets may present greater problems. A higher than originally planned rate of industrial growth would certainly result in an increase in the requirements of raw materials, fuel and spares. The lack of competent managers with the necessary training and experience is serious, particularly in the larger projects, while the shortage of skilled personnel especially at the foreman level is a real bottleneck. Progress towards a higher level of industrial efficiency is, however, being made and the attainment of adequate levels of productivity is within the reach of some industries.

xxii. The Mission believes that, in general, the need for improving the transport and telecommunications system is great. A large part of the proposed program is undoubtedly sound, although in some cases, for example road development in East Pakistan, the allocation may be too high, whereas in others, such as inland water transport, also in East Pakistan, it may be too low. The Mission is satisfied that, in general, the plans for improving the railroads are sound. The Mission believes that the need for commercial road transport vehicles is probably larger than the estimates set forth in the Plan. The Mission was encouraged by the condition of the sea-going ports of Pakistan. The allocation in the Plan for coastal shipping

seems highly desirable, although the Mission is of the opinion that the program might, with advantage, be reconsidered; smaller vessels might be obtained for use in the trade between Dacca and Karachi without transshipment. The programs for civil aviation and telecommunications do not present any unusual problems; however, the Mission has doubts about the advisability of the large jet aircraft program even for inter-Provincial service. The Mission believes that consideration should be given to improving the inter-Provincial service by permitting foreign flag aircraft to fly between, say, Dacca and Karachi or Chittagong and Karachi.

xxiii. In the electric power field, there is a tendency to over-emphasize lower priority rural distribution works. The allocations for fuel development are substantial, but the problem of fuel is becoming increasingly serious as road transport development becomes more important and as larger share of power generation is inevitably based on conventional thermal plants. Most of the increase for the revised power program is attributed to an expanded program for transmission, distribution and rural electrification. A relatively minor part of these additional allocations is attributable to price increases. The Mission is of the opinion that much of this distribution and electrification program might with advantage be spread over a longer period of time. The technical and administrative difficulties would in any case probably prevent so large a program from being effectively carried out during the Plan period. This is despite the fact that Water and Power Development Authorities have been established, one in each Wing. Although they have been in existence only for a short time, both WAPDA's impressed the Mission that they are determined to bring order and reasonable efficiency into the power sector. A large number of consultants have been employed and the Mission feels that, in general, they are being effectively used.

xxiv. The Mission would find it difficult to question the need for housing, water supply and sewerage. But, although it was not in a position to evaluate the program in great detail, the Mission questions whether the size of the original program should be enlarged at this time. Large expenditures are required for overhead projects such as power and transport and for agricultural and industrial development needed for the transformation of the Pakistan economy, and at this stage caution must accordingly be observed in the social welfare sectors and priorities weighed carefully.

xxv. For the goal of longer-term development of the country, nothing is of higher priority than education and training, and the Mission would fully support the modest upward revision that has been made in this program. The Mission did not have the opportunity to make a proper study of the public health program but, in general, the targets seemed realistic and feasible.

PART I

RECENT ECONOMIC DEVELOPMENTS

General

1. During the financial year 1959/60 and the second half of 1960 Pakistan's economy continued to benefit from the general climate of confidence which has been prevalent since the new regime took over in October 1958. The first six months of the Second Five Year Plan, starting on July 1, 1960, have been characterized by a steady, if uneven, trend of progress in the private sector, including some windfall gains in export earnings and maintenance of stability in public finance. Private industry, banking, commerce, and in some respects also agriculture, entered the Second Five Year Plan under very favorable conditions.

2. Real national income in 1959/60 rose by 4.7% over the previous year's level; this in part reflects progress achieved in manufacturing industries, but to a larger extent is attributable to a substantial increase (12.2%) in foodgrain production, which, depending heavily on climatic circumstances, has been favored by good weather for two successive years.

3. The Government's over-all economic policy has been characterized by a continued withdrawal of controls, which had been significantly tightened in the early days of the present Government with the aim of checking inflation and restoring the rapidly deteriorating foreign exchange position. With the situation improving, some important steps were taken to strengthen free enterprise and stimulate production in the private sector. The new rates of company taxation introduced in 1960/61 were designed to stimulate reinvestment of profits, and the extension of the tax holiday and the lowering of intercorporate dividend taxes worked together towards attracting more private investment from abroad. (For details of the new tax structure, see Report No. AS-81a, Annex A. Some of the effects are discussed in the annex on Industry.) The enlarged volume of export earnings, due partly to the successful operation of the Export Bonus System introduced two years ago, made possible a significant degree of import liberalization since the second half of 1959. This in turn eased bottlenecks in the supply of raw materials and spare parts, and permitted a more balanced utilization of existing capacity in some sectors of industry. Finally, with the prospect of supply and demand coming closer to equilibrium in the domestic field, Government in 1960 removed a number of price controls, leaving only fifteen commodity items under control as of February 8, 1961.

4. These favorable developments in the private sector can be regarded as genuine progress; a more propitious climate for private enterprise is important for long term growth prospects in Pakistan, however small the immediate impact on the economy may be in terms of GNP. It does not seem that the present rate of expansion in manufacturing industry (around 11% per annum, total output representing 14% of GNP) can be substantially exceeded in the near future; it would appear possible, however, that the Plan targets, which provide for an annual 8.1% increase in manufacturing production, will be

exceeded somewhat. In agriculture, on the other hand (55% of GNP), production is erratic and the increase in output in 1959/60 does not reflect a comparable long term trend in productivity.

Production

5. The index of industrial production stood at 202.6 in the first quarter of 1960 as against 180.1 in 1959 and 161.4 in 1958. Later production figures for cotton textiles are not yet available, but for jute manufactures the increase in volume in 1960 over 1959 is estimated at 11.8%, despite a tightened supply situation in raw jute. Production of raw jute (see Table 2) improved only slightly over last year's low level; late arrival of the crop and an exceptionally low carryover were responsible for a substantial rise in jute prices.

6. In 1960/61 the rice crop will again be above the previous season and second estimates (Table 2) show a bumper crop of 9.847 million tons, or 17.5% above the last ten years' average; in the case of wheat, the area under cultivation this season was about 17.4% less than in the previous season, owing to drought, and a crop shortfall of between 20 and 25% is expected. It is hoped that this shortfall will be covered by accelerated shipments of foodgrain aid under PL 480.

7. Last year's agreement with the United States on foodgrain aid provided for shipments of 550,000 tons of wheat in 1960/61 and 450,000 tons in 1961/62. Under the new circumstances the total of one million tons may be shipped in the current financial year, and additional agreements under the enlarged PL 480 program be reached soon.

Domestic Price Policy

8. The year under review has witnessed a major change in foodgrain policy; with the promise of continued supplies under aid, Government removed controls on prices and the free movement of grains with the effect from April 1, 1960. Upon announcement of this measure early in 1960, prices advanced from Rs. 12.50 to Rs. 15 per maund (Lyallpur) to Rs. 17.20 in February and subsequently remained around the announced Government release price of Rs. 15.50 per maund during 1960 after decontrol. More recently, with the forthcoming partial crop failure, prices were again between Rs. 17.50 and 18.50. The minimum price at which the Government will purchase in the market was announced Rs. 13.50 per maund.

9. Rice rationing in East Pakistan has been abolished in all but three urban districts. Under favorable supply conditions, prices remained fairly stable and averaged Rs. 22 per maund in November-December 1960 as against Rs. 23 one year earlier.

10. With regard to imported goods, controls were gradually relaxed during 1960 and early in 1961 (details of import policy described below). As a result of liberalization, imports of raw materials, equipment and consumers goods on private account (exclusive of semi-public sector) increased by 53% in 1960 over the previous year. This enabled trade and industry to build up some inventories and to make a fuller utilization of existing capacity, wherever demand for imported raw materials had previously been in excess of supply. In some instances such as chemicals and dyes, prices dropped by as much as 30-50%, and by 15-20% for other articles.

11. A number of domestic price controls have been removed in 1960, in addition to foodgrains, and early in February 1961 the greater part of remaining controls were also withdrawn. Prices of only 15 items are still controlled, among which are tractors, bicycles, mechanically propelled vehicles, tea, soda ash, vegetable oil and gramaphone records. The decontrol of textiles ranks among the most sweeping measures in this context, as the restoration of a market balance in this case is still precarious.

12. As a by-product of import liberalization, the year 1960 witnessed a sharp expansion of bank credit; the consequent increase in domestic money supply will probably exceed the increase in domestic output of consumers goods in the immediate future, as many industries are still in great need of balancing equipment, and the stepping up of production will take time. In the meantime some of the additional money in circulation may take the form of idle liquidity, as will be discussed below; just to what extent this element will contribute to a better over-all equilibrium in prices it is impossible to forecast. Government are presently watching the evolution of prices very closely and are prepared to either reimpose controls or curb price rises by permitting more imports of selected commodities as the situation would warrant.

Money and Banking

13. The Government's over-all economic policy of successively loosening existing restrictions and favoring the development of private enterprise has also reflected itself in the monetary picture. (See Table 4.) In 1959/60 monetary expansion originated entirely in the private and foreign sectors, while Government transactions, after taking into account the accumulation of counterpart funds, were kept in equilibrium. In the first half of 1960/61 Government showed a small net expansionary effect, and no additional monetization originated in the foreign sector (the net increase in foreign reserves through December 1960 roughly equalled the amount drawn from the IMF in July 1960, for which no domestic counterpart rupees are generated.)

14. Since June 1959, Bank credit to the private sector has become the primary factor in monetary expansion in Pakistan. As shown in Table 4, the domestic private sector had caused an increase of Rs. 357.5 million and the foreign sector of Rs. 220.2 million in money supply during 1959/60. This was partly offset by a shift from demand to time deposits in the order of Rs. 192.6 million, leaving a net expansion of Rs. 385.1 million from both the private domestic sector and the foreign sector taken together.

15. In the first half year of 1960/61 the figure for both these sectors together is Rs. 291.0 million (compared to the corresponding semi-annual figure of Rs. 322.0 million last year). In this period, the disappearance of foreign exchange monetization had been accompanied by a greater increase in Bank credit and a smaller shift to time deposits. Compared with the corresponding period in 1959/60, Government operations changed from a net contraction of Rs. 69.8 million to an expansion of Rs. 28.2 million.

16. Commercial lending continues to be the dominant element in the growth of money supply in Pakistan. Scheduled banks' advances to the private sector totalled Rs. 1,602 million at the end of March 1960 (the peak of the busy season) as compared to Rs. 1,221 million one year before, and reached the figure of Rs. 1,995 at the end of March 1961, which marks an annual increase of 25% between March 1960 and March 1961, compared to 31% one year earlier.

17. The progressive rise in the level of imports is a principal reason for the current expansion of credit. In addition, the decontrol of foodgrain trade, announced in March 1960, is said to have contributed almost Rs. 100 million, or 25%, to the general increase in bank advances. Finally, as it appeared in the fall that a serious shortage of jute would develop, jute prices rose by more than half, and this exceptional situation occasioned a demand for commercial advances much above normal requirements. Contraction of credit which normally occurs in the slack season was smaller than usual between March and September 1960; this is explained by the timing of foodgrain decontrol and of the introduction of automatic import licensing.

18. Recent expansion in private credit, although very largely based on increased borrowing from the State Bank, is not of a nature which would by itself generate inflation, as it followed a considerable expansion in the volume of transactions. Prices were bound, after decontrol, to be boosted by some liquidity overhang on the consumer side (previously "suppressed" inflation) and part of the increased credit, e.g., to the foodgrain trade, was absorbed by the deliberately increased price to producers. (The previous low procurement price for wheat was considered to be a disincentive to production and an inducement to smuggling over the Indian border.)

19. It is noteworthy that the expansion in currency was much more substantial during 1960 than the increase in demand deposits (Table 3). Expansion of income in the rural sector is held to be largely responsible for this. As mentioned before, foodgrain production in 1959/60 increased 12.9%. The price of wheat advanced appreciably in spite of increased supply after the abolition of compulsory Government procurement. In the case of rice growers, the increase in yields at the stable price resulted in some increased flow of cash from urban into rural areas in East Pakistan. The increased price of jute, though mainly absorbed by merchants, may also have shifted some liquidity to the growers. It can be assumed, therefore, that part of the recent monetary expansion has filtered out of the banking circuit into small cash holdings in the rural areas where the propensity to hoard is still considerable.

Credit Policy

20. In order to check commodity and stock exchange speculation, the State Bank in January 1960 introduced restrictions on bank advances against shares, imposing a ceiling of 50-60% of the share value (except for brokers), and in March of the same year directed the banks to limit their advances against imported manufactured goods (other than iron, steel and machinery) to 60% of their value. A ceiling of Rs. 50,000 was also imposed on unsecured advances.

21. These selective credit controls were designed to insure that the increased quantity of imports also resulted in an increase of actual supplies in the market rather than in the holding of larger stocks by importers. Their primary purpose was not to act as a brake on credit expansion; in this latter respect, the State Bank subsequently urged the private banks to exercise restraint in their lending activities and to increase their efforts to build up deposit resources. An appropriate amount of credit retirement in the coming slack season was also strongly recommended.

Public Finance

22. The Central and Provincial budgets for 1960/61 have been extensively discussed in the Bank's last report (Report No. AS-81a, Annex A), and little more can be said at this time. For revenue receipts, import duties may yield somewhat more than expected, which may be offset by a shortfall in export duties on jute and tea, which are both specific. It is not yet possible to estimate how much the actual yield of excise and sales taxes, as well as the corporation tax, will exceed the original budget estimates, owing to a fuller utilization of industrial capacity. Capital expenditures will probably undergo some upward adjustment, but on balance there is no reason to believe that a serious disequilibrium is in sight. There are, however, some indications which make it appear probable that by June 1961, Government will have exerted a somewhat larger expansionary effect in the monetary field than was the case up to December 1960.

23. In August 1960 the Central Government floated a five-year 3-3/4% loan amounting to Rs. 102 million. Scheduled banks subscribed 85%, while institutional investors supplied 15% of the loan. Two Provincial Government's loans yielded Rs. 80 million, of which Rs. 36 million was by conversion of earlier bonds. The interest rate on the new loans was 1% above those tendered for conversion in both cases (4½% East Pakistan, 4% West Pakistan). Institutional investors subscribed 38% of the cash portion, and banks 62%. For the first time, a Rs. 50 million West Pakistan WAPDA debenture issue at 5½% was finalized early in 1961 for the financing of the Multan power project. The bonds would first be offered to insurance companies and other investors by a consortium of banks which themselves pledged to subscribe the remaining part.

24. Although it would appear from the foregoing that Government bond issues with a higher interest rate would have to rely less on the banking system and could attract more saving funds, the scope for Government borrowing from non-bank sources will be very limited for some time to come.

Balance of Payments

25. During the first half of 1960, the State Bank of Pakistan recorded a steady increase in its foreign exchange reserves (gold, dollar and sterling) with a peak figure of Rs. 1321.5 million ($278 million) at the end of March 1960 (Table 5). After a slight drop in June, the year 1960 closed with foreign exchange reserves standing at Rs. 1294.0 million ($272 million). With a slight further increase during the first two months of 1961, it is expected that foreign exchange reserves at the end of the current financial

year will be around Rs. 100 million ($21 million) above previous year's level (part of this increase being due to a drawing from IMF). The exchange reserve position can thus be viewed with some equanimity, even if account is taken of further import liberalizations announced in December 1960 and March 1961. At present foreign exchange reserves cover 10 months of 1959/60's merchandise imports (other than aid-financed).

26. Export promotion and import liberalization (see below) have been well coordinated in the past four shipping periods, with the effect of a considerable increase in foreign transactions in both directions. Total exports increased by 40% in value and imports by 56% between 1958/59 and 1959/60.

27. Foreign exchange earnings for 1960/61 (the first year of the Second Plan) had originally been estimated at Rs. 1983 million ($416 million). Revised estimates (Table **13**, January 1961) place the figure at Rs. 2,164 million ($455 million), which represent an increase of 9.3% over the Plan target. The principal cause for this is an increase in the value of raw jute exports (by Rs. 100 million) and jute manufactures (by Rs. 72 million), while miscellaneous exports are up by Rs. 25 million, and invisible receipts by Rs. 45 million. Exports of tea are almost nil, due to a shortfall in the 1960/61 crop by 10 million pounds or 18%, coupled with a current increase in domestic consumption, and export earnings for cotton manufactures will also be somewhat lower than originally estimated, owing to the withdrawal of the export bonus on yarn.

28. As a result of import liberalization, non-development imports (Table) also went up from the Plan estimate of Rs. 2,210 million ($465 million) to current estimates of Rs. 2,559 million ($537 million), an increase of 15.8%. This increase is composed of Rs. 170 million for consumer goods, Rs. 180 million for raw materials, fuel and spare parts, and some adjustments for debt service and foodgrain purchases. Current estimates for Government non-developmental foreign exchange expenditures are Rs. 114 million below Plan estimates. (Part of this is due to a reclassification between this item and consumer goods imports on Government account; in addition there was some elimination of double-counting.)

29. The current account deficit (excluding development imports) for 1960/61 is thus expected to be larger by about Rs. 160 million ($34 million) than originally estimated, which is not a matter for serious concern as the foreign exchange situation at present is fairly comfortable. For the capital account, no figures are yet available.

Export Policy

30. The Export Bonus Scheme has been most instrumental in promoting exports since it was introduced in January 1959. Other measures such as bilateral payments agreements, which were mostly related to increases in exports of cotton and jute, were of limited scope and have small significance compared to the impact of the Export Bonus Scheme on exports of a very large number of raw and manufactured goods.

31. All exports (except raw jute, cotton, hides and skins, raw wool and most varieties of rice) earn bonus entitlements for foreign exchange in the amount of 20 or 40% respectively of their f.o.b. export value, according to the category involved. Bonus vouchers are freely transferable (except in the case of the hotel industry) and can be used for the import of 218 commodities, the list of which has been subsequently enlarged and modified in connection with changes in the list covering items for automatic and ordinary import licensing.

32. Bonus vouchers are quoted on the Karachi Stock Exchange and earn a premium which in 1959 has fluctuated between 150 and 175%; during 1960 there was a downward trend from March (175) to August (115) and subsequently quotations fluctuated around 120, but in February 1961 again reached the neighborhood of 140.

33. This premium represents a varying amount of additional rupee earnings for exporters above the official exchange rate. Up to June 1960, approximately 37% of Pakistan's exports benefited from the scheme. For imports, as far as they are entirely financed by bonus purchases (about 12% of total imports) the premium represents an import surcharge, siphoning off excess demand for imports, which accrues as a subsidy to exporters. The Scheme has been most helpful in the improvement of the foreign exchange position; it can, however, be criticized on the grounds that it partly creates de facto multiple exchange rates.

34. The Export Bonus Scheme had its greatest impact on the volume of exports during 1959; exports of food, drink and tobacco rose by 253% above the 1958 level, raw materials by 106%, manufactures by 160% (cotton yarn and jute yarn and manufactures accounting for the biggest part of this increase). Total exports covered by the Scheme registered a phenomenal increase of 165% in 1959. During the first and probably also the second part of 1960 the upward trend flattened down, as the impact of the original Bonus Scheme had been fully worked out (only a 6% increase in January-July 1960). With the objective of further channeling the utilization of bonus vouchers into essential imports, Government in February 1960 directed jute manufacturers to use 50% of their vouchers for imports of jute manufacturing machinery. At the same time they were given an assurance that the Scheme would not be abolished for jute manufactures during the Second Plan period.

35. In the case of cotton yarn, the increase in exports during 1959 created a serious shortage in the domestic market, necessitating temporary price control and rationing; the export bonus on yarn was reduced to 10% in January 1960 and altogether abolished in January 1961. As a consequence the domestic supply position improved and controls were withdrawn in February 1961.

Import Policy

36. The object of import liberalization is threefold: first, to remedy the shortage of raw materials for industry which was one of the reasons why production has previously been running substantially below capacity in some sectors; second, to ease pressure on prices of raw materials as well as

consumers goods; and third, as a demonstration backing the Government's warnings to industry that unwarranted price rises - after the lifting of domestic price controls - would if necessary be counteracted by further import liberalizations.

37. Foreign exchange allocations had already been considerably enlarged under ordinary licensing for July-December 1959 and subsequently for January-June 1960. As a second step in July 1960, 28 items were placed under automatic licensing, and the number of items increased to 61 in December 1960.

38. Under this policy, licenses are issued on proof of utilization of the previous license as evidenced by Bills of Lading. Among the items listed are iron and steel, metals, chemicals, rubber, tractors, vehicle parts, tires and tubes, laboratory glassware and instruments, books, and (since December) building and insulating materials, packing, ball roller and taper bearings, films, office equipment, motor cycles and scooters, etc. Drugs and medicines had already been put under automatic licensing from January 1960.

39. Under automatic licensing, 130 industries were issued initial licenses for raw materials included in the list, at 100% assessed single shift capacity in July-December 1960. For January-June 1961, 118 industries are given 100% automatic licenses for all required raw materials, and another 51 industries will be issued the same initial licenses without automatic repeat facility. Finally, for the remaining 43 industries, licenses will be issued at the preceding period's level. Commercial importers are receiving licenses at 100% of category (base period 1950/52), and newcomers are invited to apply for applications according to a specified schedule. It is estimated that under present arrangements 4/5 of the industrial sector will be able to meet their requirements.

40. Among the above 118 industries, 12 have been selected for special treatment (mainly small and medium-sized industries such as tanneries, sports goods, cutlery, surgical instruments, etc.). The initial licenses at 100% assessed capacity will be automatically repeated only upon documentary evidence of export performance.

41. On March 9, 1961, it was announced that for the first time since 1952, 11 items of essential raw materials were placed under "Open General License". The most important feature under this new regulation is that for such imports there remain no restrictions for newcomers and items listed can be imported for personal use by individuals without registration as an importer. Flat rates for initial licenses are, however, established at relatively modest figures (e.g., Rs. 10,000 for iron and steel and for tools and workshop equipment, Rs. 50,000 for tractors and spares, Rs. 20,000 for cement and for iron and steel into East Pakistan only, Rs. 2,500 for laboratory equipment, Rs. 5,000 for office machinery) and the issue of repeat licenses is still contingent upon production of Bills of Lading showing utilizations of not less than 75% of the value of the earlier license. This means that in fact the new arrangement is only a broadening in scope of automatic licensing. In addition it contains an element to encourage exports in that the above ceilings for initial licenses can be exceeded by 25% in case

a registered importer shows "reasonable export performance to his credit". The main beneficiaries of this new "OGL" procedure will probably be medium and small industries including individual workshops, which is in line with the long-term objective of encouraging entrepreneurship at the grass roots.

42. The immediate effect of automatic licensing on the volume of imports was small compared to the previous enlargement of allocations. This would indicate that after a large initial expansion of imports, domestic demand for licensable imports is increasingly met by current availabilities. According to provisional estimates, private import payments in the second half of 1960 (after the first introduction of automatic licensing) were only 5% above the first half of 1960. As there exists an administrative time-lag between allocations and utilization of licenses, the full effects of recent liberalization measures may work themselves out in more sizeable proportion during the current shipping period.

THE SECOND FIVE YEAR PLAN

43. The Second Five Year Plan (1960-65) was accepted by Government and published in June 1960. The general framework and content of the Plan was discussed in a Bank report entitled "Economic Development in Pakistan" (Report No. AS-81a, dated August 17, 1960). In recent months the Pakistan Planning authorities have been conducting an extensive review of the Plan as a result of which its over-all financial magnitude has increased considerably and its content has been somewhat modified.

44. This revision of the Plan cannot be regarded as final, since there are some important development activities which are seriously contemplated but are not yet incorporated in the Plan, such as changes in the administration and scope of agricultural development based on the recommendations of the Food and Agriculture Commission. At the time of writing, the situation must therefore be regarded as still fluid and the general magnitudes of the Plan presented in the following discussion are probably not final. The Mission is therefore unable to express firm judgments on the revised Plan at this stage.

The Original Plan

45. The original Plan was estimated to involve total gross investment of Rs. 19,000 million ($3,992 million) of which Rs. 12,500 million ($2,626 million) was in local currency resources and Rs. 6,500 million ($1,366 million) in foreign exchange. It was also estimated that during the Plan period additional foreign aid amounting to Rs. 1,500 million ($315 million) was necessary for maintenance support, that is, to cover expected deficits in the current account of the balance of payments, excluding development imports. The report "Economic Development in Pakistan" concluded that if the foreign aid envisaged in the Plan was forthcoming, the Plan's assumptions regarding availabilities of domestic resources did not in general appear unrealistic as a framework, provided the actions necessary to achieve the desired results were in fact taken. The report pointed out that the three critical questions were (1) whether in the public sector revenue surpluses of the size contemplated could in fact be achieved, (2) whether the public corporations and private enterprise would in fact earn sufficient profits to permit financing of investment on the scale envisaged, and (3) whether a credit expansion of Rs. 1.7 billion during the five years was acceptable. The report concluded that on the first two points there was reasonable prospect for fulfillment, and that the third could be accepted with caution.

46. The report also stated that in general the proposed allocation of resources among the various development sectors appeared reasonable, but pointed to the probability that organization and administrative limitations would continue to be a serious bottleneck in carrying out the development program and in ensuring an effective expenditure of development funds.

Indus Works

47. The original Plan was prepared before the Indus Basin Water Treaty and the Indus Basin Development Fund Agreement had been signed. The direct and indirect requirements for executing those Works were therefore incorporated in the original Plan only to a minor extent. The revision takes these implications much more fully into account.

48. The Settlement Plan Works will be carried out over a ten-year period, and in the Second Five Year Plan period no direct benefits in terms of increase of output will accrue from them. They will, however, confer some indirect benefits, arising from the increase of demand for domestic goods and services to execute the Works and from the training and experience which nationals working upon them will obtain. There is, however, simultaneously a danger that this increase of demand and income could lead to inflationary effects if the supply of goods to meet that demand is not expanded correspondingly, or if the execution of the Indus Works is permitted to disturb the over-all financial equilibrium of the economy.

49. The Works are being financed by contributions from the United States, United Kingdom, Germany, Canada, Australia, New Zealand and India, plus loans from the IBRD and the United States Development Loan Fund. These contributions are paid into the Indus Basin Fund, of which the IBRD is the Administrator, and are used to reimburse expenditures on eligible items in both foreign exchange and local currency. Part of the local currency expenditures are financed by counterpart funds generated by the sale in Pakistan of PL 480 commodities supplied under United States aid and part by the purchase of rupees with foreign exchange.

50. There are some items of expenditure which will not be eligible for reimbursement from the Fund. The negotiations regarding the classification of reimbursable and non-reimbursable items are not yet complete, but it appears that the non-reimbursable category, which will be financed from Pakistan's own resources, will be relatively small. The West Pakistan Water and Power Development Authority, which is responsible for executing the Works, estimated in December 1960 that the total cost (including foreign exchange) of the non-reimbursable items was Rs. 330 million ($69 million) while the reimbursable items would be Rs. 2,900 million ($609 million) - both figures being for expenditures during the Second Plan period. These estimates are tentative but have been adopted by the Planning Commission for planning purposes.

51. For the reimbursable items which will be financed from the Fund, there is, of course, no call upon Pakistan's own financial resources. The Planning Commission has now incorporated the non-reimbursable direct expenditures for Indus in its over-all estimate of investment expenditures during the Plan period and, as described later, has included those requirements in its allocation of expected resources. There are, in addition, indirect consequences of executing the Indus Settlement Plan Works which are also

being included in the Second Plan itself as they become known. The leading example here is part of the expanded Railways program.

52. Executing the Indus Basin Settlement Plan Works will place additional strain upon Pakistan's real resources, particularly in the field of skilled manpower. Many of the higher technical skills will be imported since most of the work will be undertaken by foreign contractors. There will nevertheless be a considerable demand for skilled domestic labor, such as mechanics and equipment operators. These requirements, so far as they were then known, were taken into account in the education and training sector in the original Second Five Year Plan, while WAPDA itself has already opened training centers for the skills needed by contractors working for it.

53. Thus the revised Plan takes the Indus Works much more fully into account than did the original one. It now appears to be the consensus of informed people that there should be no unusually grave difficulties in executing the Indus Works concurrently with a program of general economic development although, as pointed out in later sections, it will be necessary continually to review the situation, particularly that of the Railways. But the burden on West Pakistan WAPDA will be severe.

Revision of the Plan

54. Since its publication the Plan has undergone revisions which have had the effect of increasing its over-all cost by 21% on the latest estimates. The Plan as now presented totals Rs. 23,000 million ($4,832 million) of which Rs. 14,550 million ($3,057 million) are in local currency and Rs. 8,450 million ($1,775 million) in foreign exchange. At the same time, the estimates for maintenance support required during the Plan period have been increased to Rs. 2,500 million ($525 million). These new estimates embody an increase of Rs. 2,050 million ($431 million) in local currency and Rs. 1,950 million ($409 million) in foreign exchange for the Plan itself plus an additional Rs. 1,000 million ($210 million) for maintenance support. Thus, total foreign aid sought during the Plan period has been increased from Rs. 8,000 million ($1,680 million) to Rs. 10,950 million ($2,300 million) or by 37%.

55. The Planning Commission's estimates show no increase in the cost of the 1960/61 program. From 1961/62, however, costs increase progressively, as can be seen from the table below (expressed in million rupees):

	Original Estimates	Revised Estimates	Increase
1960/61	3,100	3,100	nil
1961/62	3,350	4,067	717
1962/63	3,700	4,723	1,023
1963/64	4,150	5,200	1,050
1964/65	4,700	5,910	1,210
Total	19,000	23,000	4,000

56. The entire increase in cost is spread over four and not five years; the increased expenditure during the four years is 25% above the original estimates for the same years.

57. As can be seen in the following table the increases in the Plan costs are not evenly distributed among the economic sectors. Taken together, industry and water and power claim more than half the total increase. The sectoral revisions are discussed more thoroughly in subsequent chapters.

Revised Cost of the Second Five Year Plan

(million rupees)

	Original Estimates	Increase Rs.	Increase %	Revised Cost
Agriculture & Village Aid	3,020	300	10	3,320
Water and Power	3,390	1,000	30	4,390
Industry	4,050	1,070	26	5,120
Fuels and Minerals	850	150	18	1,000
Transport & Communications	3,350	700	21	4,050
Housing & Settlements	2,840	670	23	3,510
Education and Training	990)			
Health	400)	110	7	1,610
Manpower & Social Welfare	110)			
Total	19,000	4,000	21	23,000
of which:				
Public Sector	9,750	2,795	29	12,545
Semi-Public Sector	3,250	325	10	3,575
Private Sector	6,000	880	15	6,880

58. The Planning Commission attributes the increase in the cost of the Plan to a variety of factors. It points out that the original costs were calculated in terms of 1959 prices, and that there since has been a considerable increase in internal and external prices. There is no price series for capital goods in Pakistan but the increase in the index of the cost of living may be taken as a rough indicator of increase in the cost of labor. The cost of living for industrial workers in Karachi rose 5% in mid-1959 and November 1960. As regards external prices, the Planning Commission states that the main factor that appears to be responsible for the rise of cost of imported machinery and equipment is the increased use of tied aid.

59. Another factor increasing the costs of specific schemes is that as detailed financial and engineering studies are completed for many projects - studies that were not available when the original Plan was formulated - they reveal an increase in cost estimates in most cases. The Mission agrees that this would be in line with past experience.

60. The carryover of expenditures on development projects from the First Five Year Plan now appears to have been larger than was originally assumed. This factor, however, does not account for more than Rs. 200 million of the increase in the cost of the Plan. Further, certain expenditures on facilities in support of the Indus Basin Settlement Plan Works have now been included. The most important of these is the provision of additional railway facilities.

61. The Planning Commission states that in addition it has been considered necessary to expand the scope of or accelerate expenditures on a few important projects beyond what was contemplated in the original allocations. Cited as examples are the coastal embankments scheme in East Pakistan, the scope of drainage and reclamation projects in West Pakistan, minerals exploitation in East Pakistan, and the Karangi and North Karachi public housing projects.

62. The Mission was not able to obtain information regarding the extent to which the increase in the estimated cost of the Plan is due to enlargement of its physical content, as distinct from increases in costs for unchanged or comparable projects or programs. However, on the basis of discussions with executing agencies in Pakistan and of comparisons between contemporary and earlier project presentations, it formed the opinion that at least half the cost increase is due to enlargement of the physical content of the Plan. On this basis the physical size of the Plan for the remaining four years (1961-65) has been increased around 13%.

63. In public statements, Government spokesmen have pointed to the results of the January 1961 population census as an important factor justifying an increase in the physical size of the Plan. This census revealed that the enumerated population of 93.8 million was 4.2 million larger than had been previously estimated and that the rate of population increase, which had previously been taken to be 1.8% during the Second Plan period, was likely to be around 2%. This would imply a population of 101.5 million in January 1965, approximately 5.4 million or about 5.5% larger than was assumed in the original Plan.

64. In consequence, if the output and national income targets of the original Plan were achieved - that is to say, with no upward revision of its physical objectives - the growth in per capita income during the Plan period would now amount to 8.5% instead of the 10% aimed at in the original Plan. But the simple inference that the Plan's physical objectives must therefore be increased correspondingly cannot be made. The census results strongly suggest that existing output and income has been underestimated, particularly

in agriculture where food output as statistically reported could not have fed the larger population now revealed, even on a minimum diet of 14.5 oz. of foodgrains per head. It is also probable that output from some sectors such as small-scale manufacturing, which have been assumed to increase in step with population growth, has been understated. It will therefore require careful analysis before the implications for development planning of the changed population picture become apparent.

65. It is not possible for the Mission with the information at present at its disposal to reach firm conclusions regarding the various justifications offered for the recent revision upwards in the estimate of costs for the Second Five Year Plan. The revisions were continued after the Mission left Pakistan, and it was unable in many cases to obtain detailed information on specific items or categories. Moreover, it seems likely that further revisions will be made. The report of the Food and Agriculture Commission and its principal recommendations have been accepted by Government but the financial consequences are not yet incorporated in the Plan. Government has announced an enlarged program for combatting waterlogging and salinity, which again would involve enhanced expenditures in the water and power sector. Two general transport surveys have recently been initiated - one in East and one in West Pakistan. The results are expected to be available by late 1961 or early 1962 and may require further increase in Plan allocations for this sector.

66. There are, however, three broad criteria affecting the feasibility of the enlarged Plan, namely the ability to raise the required domestic investment resources, the availability of foreign aid and the technical and administrative capacity to implement the Plan. Each of these will be examined separately in subsequent sections of this report.

Maintenance Support

67. The estimate of external aid required to cover the deficit in the current account of the balance of payments ("maintenance support") has been revised upwards from Rs. 1.5 billion ($315 million) to Rs. 2.5 billion ($525 million), as shown in the summary table below (millions of rupees).

	Original		Revised	
	Rs.	$	Rs.	$
Foreign exchange earnings	10,600	2,225	11,253	2,362
Non-development imports	12,100	2,540	13,753	2,887
	1,500	315	2,500	525

68. Estimated foreign exchange earnings during the Plan period have been revised upwards by 6.2%, while estimated non-development imports, (excluding development imports and aided foodgrain imports) have increased still further, by 13.6%.

Export Earnings

69. As shown in Table 13, in the Statistical Appendix, raw jute and jute manufactures at present account for more than half the total foreign exchange earnings and will continue to do so in the immediate future. In the later years of the Plan, cotton and cotton manufactures which at present contribute one-sixth, are expected to increase both in absolute terms and proportionately to one-fifth of the total, while the contribution of the jute sector will slightly decline in proportion. All other exports including invisibles are expected to grow from Rs. 649 million ($136 million) to Rs. 818 million ($172 million), (26%) in the next four years, giving an increase in estimated total annual foreign exchange earnings from Rs. 2,164 million ($454 million) in 1960/61 to Rs. 2,447 million ($514 million) in 1964/65 (13%).

70. With an assumed decline of the present relatively high jute prices to a more usual level, the official projections of earnings seem to be reasonably sound. In volume, the projected increase in exports of jute manufactures seem to be rather optimistic, assuming as they do that Pakistan will capture most of the 2% annual growth in world demand. On the other hand the projection of prices is more conservative; the underlying idea is that a low price will be the means to compete not only with Indian jute products but also against substitutes. The Mission thinks that the Planning Commission's assumptions leave enough flexibility so that a possible shortfall in volume may be compensated by an upward adjustment in price.

71. The same observation can be made with regard to raw cotton exports, where the price assumption of 21 U.S. cents per pound for 1964/65 is probably too low, and a 9% annual increase in volume certainly very optimistic. The trend in Pakistan raw cotton exports has been clearly downward in the last eight years because domestic mill consumption has risen almost five-fold, while production was more or less stagnant. The Plan document states that projections of export earnings for raw and manufactured cotton must be viewed together, and any shortfall in raw cotton would probably be offset by larger exports of cotton goods. It should, however, be borne in mind that after the abolition of all Government controls on price and distribution of textile goods early in 1961, the domestic market may increasingly become more attractive for cotton manufactures, and some export incentives may be lost because of price movements at home. The withdrawal of the export bonus on yarn also works in this direction; these factors will probably make it hard to achieve the 55% increase in export earnings for cotton manufactures proposed over the next four years, plus an additional increase in the event that raw cotton exports fall below the level projected for them.

72. With these reservations, it may be concluded that generally the estimates of foreign exchange earnings are reasonably well founded, at least as far as the next two years are concerned. The scope for expansion in traditional exports is narrow, and in the case of the two largest products of industry, cotton and jute manufactures, the former is subject to increased

domestic consumption and the latter has limited possibilities because substitutes make themselves increasingly felt in world markets and great efforts in merchandising are necessary for the increased use of jute in floor covering, curtains and possibly apparel in more developed countries.

73. Minor items such as leather, leather articles, fish, timber and other miscellaneous exports may do better than expected, while estimates for superior rice, which is exported mostly to Middle Eastern and African countries, would seem to be difficult to achieve.

Non-development Imports

74. Imports of raw materials, fuels and spare parts, which account for half the total non-development imports during the Plan period, have increased much more than expected; in fact the last two years witnessed an annual increase of about 25%. The revised estimates for the next four years are based on the assumption that this rate of increase will not be maintained; rather, an increase of less than 20% spread over the whole remaining period is expected. Although it is true that some previously suppressed excess demand had been released in the last two years, this fact alone does not explain the large recent increase of imports, and the Mission believes that with the present import policy the revised projections may be too low. As pointed out in the chapter on industry, the rate of expansion of the industrial sector is likely to exceed the Plan targets, and with currently enlarged capacity the demand for imported raw materials will also grow in line with output. In large and medium sized industry the Plan envisages an increase in production by 60% during the Plan period; even if the import component should decline and more materials be produced at home, the above import projections must be considered as an absolute minimum.

75. Among those raw materials where new domestic production is expected to replace part of present imports during the Second Plan are chemicals (particularly fertilizers, soda ash, caustic soda, and sulphuric acid), refined petroleum, artificial fibers, and perhaps steel. A number of these plants are still in the planning stage and would come into production only during the last two years of the Plan, so that imports of iron, steel and non-ferrous metals and semi-products, spare parts and petroleum products, which together account for more than half of "raw materials, fuels and spares" imports, would not be relieved for the next two years.

76. It is reported that new coal deposits of good quality were very recently discovered in East Pakistan, which ultimately might replace all Pakistan's imports and save Rs. 60 million ($13 million) annually in foreign exchange. The required mining equipment, as far as it has to be imported, would in the meantime be in addition to present "development imports" as it is not included in the Plan. The new petroleum refinery in West Pakistan will come into operation only during the last two years of the Plan, and the same will be the case with the rayon plant. Two plants for the production of nitrogenous fertilizers will probably be completed in 1961/62, and replace

part of the imports for the large fertilizer program in agriculture, but superphosphates will continue to be imported during the Second Plan period. It appears therefore that the needs for raw material imports will probably be larger than expected in 1961/62 and 1962/63, and rise at a slower rate afterwards.

77. As far as consumer goods are concerned, current imports are composed of more than 50% foodgrains, of which about two-thirds in the form of grant aid or against sales for local currency. Projections of grain purchases from Pakistan's own resources were made before the enlarged PL 480 program became known, and were placed at Rs. 500 million ($105 million) for the remaining four years, most of it concentrated in 1961/62 and 1962/63. The Mission has not received any information on whether the new PL 480 program might replace part or all grain imports against foreign exchange. It is conceivable that these foreign exchange expenditures might now be reduced from the projected Rs. 350 million ($74 million) in the next two years, and this would permit some relief if the position of raw materials would become tight in 1962/63.

78. Non-foodgrain consumer imports stood at Rs. 370 million ($78 million) in 1960/61 and official projections show a slight decline in the following years, on the assumption that domestic manufactures will increasingly replace imported goods. The Mission has some doubts on this, on the same grounds as in the case of raw materials, but for lack of more detailed information the question could not be examined systematically. Within the large variety of imported consumer goods, drugs and medicines form the largest item (about one-sixth), followed by petroleum products, vehicles, hardware and textiles. For drugs and medicines, import substitution is a difficult problem and involves the question of prices, as imported drugs are cheap. Kerosene and motor spirit may by 1963 be domestically produced from imported crude; it is, however, difficult to see that with an increasingly liberal import policy the recent upward trend of consumer goods imports should reverse in the two years immediately ahead.

79. It should be noted that in the Planning Commission's presentation, debt service (interest as well as repayment of principal) is included in non-development or "maintenance" imports. No change has been made in the original projection of debt service, which is set at Rs. 950 million ($200 million) for service on existing loans and Rs. 500 million ($105 million) for service on new loans during the Second Plan period.

Domestic Resources for the Plan and Indus

80. The August 1960 report entitled "Economic Development in Pakistan" concluded that "in general the [original] Plan's assumptions regarding availability of domestic resources do not appear unrealistic as a framework provided the actions necessary to achieve the desired results are in fact taken." Should Pakistan receive expanded commodity aid for maintenance support (to cover anticipated deficits in the current account balance of

payments) and enlarged PL 480 aid from the United States, the same general conclusion can be reached for the enlarged requirements of local currency expenditures of the revised Plan plus Indus.

81. The information made available to the Mission does not permit as detailed an analysis of probable local currency resources as was possible in the earlier report. However, some comparisons can be made and some conclusions drawn based on Table 15 in the Statistical Appendix. From that table it appears that the local currency requirements of the Second Plan have increased from Rs. 12.5 billion to Rs. 14.55 billion, or by Rs. 2.05 billion. As can be seen from the table below the greater part of this increase is expected to be covered by larger budgetary resources.

	Original	Revised	Increase
	(billion rupees)		
Budgetary resources	4.00	5.85	1.85
Semi-public sector	0.56	0.60	0.04
Private savings a/	4.44	5.20	0.76
Counterpart funds	2.50	2.75	0.25
Borrowing from banks b/	1.00	0.15	- 0.85
Local currency requirements	12.50	14.55	2.05

a/ including borrowing from banks (Rs. 700 million in original Plan)

b/ Public sector only.

82. The authorities now believe that the consolidated revenues of the Central and Provincial Governments will be higher than originally estimated by Rs. 1.55 billion. Within this total, revenue receipts are expected to increase by Rs. 1.44 billion, due largely to increase in customs and sales tax receipts following the recent liberalization of imports. Tax receipts during 1960/61, excluding new taxes levied that year, are now expected to be Rs. 260 million more than previously anticipated due largely to the aforementioned cause. It is also expected that in subsequent years other tax revenues will increase due to the enlargement of the tax base on account of increased outlays on development and the Indus Settlement Plan Works. At the same time, however, non-development expenditures from revenue have been increased by Rs. 820 million, based on a rough estimate of the effect of rising prices and in anticipation of some increase in the salaries of Government employees. Taking these factors into account, as well as the increase of customs duties on commodity aid (which are not included in the budget) and local body resources, it is now estimated that the revenue surplus available for investment will be Rs. 2.43 billion during the Plan period instead of the original estimate of Rs. 1.5 billion. This increase of revenue surplus is, however, partly dependent upon increased foreign aid permitting higher imports which pay customs and sales tax.

83. The above estimates do not take into account additional revenues derived from new taxation imposed during the Plan period. It is now estimated that additional taxation adopted in the first year of the Plan will yield approximately Rs. 750 million during the Plan period, and that an extra Rs. 1 billion may be derived from further increases in taxation during that period. There has also been an upward revision in estimated net capital receipts (from Rs. 1.5 billion to Rs. 1.67 billion) due mainly to larger receipts from the Railways and the Post and Telegraph Department which were revealed in the statistics for 1960/61.

84. At the same time it is proposed to reduce deficit finance of the public sector originating in borrowing from the banking system from the originally estimated amount of Rs. 1 billion to Rs. 150 billion - a reduction of Rs. 850 million. Taking this into account, the net additional contribution of the public sector is Rs. 1 billion.

85. The increased call upon the resources of the semi-public sector for local currency finance is minor, while as now envisaged the increased use of counterpart funds for the Second Plan itself is relatively minor.

86. Private "savings" are expected to increase by Rs. 760 million. In the original Plan these "savings" included private borrowing from the banking system of Rs. 700 million - an amount that was questioned as being perhaps too small to support the private sector expansion envisaged by the Plan. The Mission is not aware of the level of private sector borrowing from banks which is at present envisaged. However, in its discussions with the planning authorities the Mission was told that it was thought that the reduction of the public sector's recourse to bank credit would permit somewhat greater expansion for the private sector without undue danger.

87. The requirements of local currency for the Indus Basin Settlement Works are outside the Second Five Year Plan. On present tentative estimates by WAPDA, these would amount to Rs. 1,285 million during the Plan period of which Rs. 1,080 million would be for items reimbursable by the Indus Basin Fund. These would be acquired by the Fund partly (Rs. 405 million) by purchases with free foreign exchange, and partly (Rs. 675 million) from rupees contributed by the United States from counterpart funds. The Pakistan authorities envisage that counterpart funds would also be used to cover local currency costs of non-reimbursable items amounting to Rs. 205 million. In this case, local finance of the Indus Works would not place any direct strain on Pakistan's public or private savings, provided sufficient counterpart funds are generated from aided commodity imports and from PL 480 imports. To achieve this the two together would need to be Rs. 3.63 billion for both the Plan and Indus, of which the Pakistan planning authorities project that Rs. 2.5 billion would be in the form of commodity aid for balance of payments maintenance support.

External Aid for the Plan and Indus

88. The foreign exchange component of the Plan is now estimated to have risen from Rs. 6,500 million ($1,366 million) to Rs. 8,450 million

($1,775 million) - an increase of about 30% compared with an increase in the total cost of the Plan of 21%. The greater increase in the foreign exchange component than in total cost is mainly because the increase in the relatively capital-intensive sectors of water and power, industry and transport is larger than in other less capital-intensive sectors.

89. At the same time the requirements of maintenance imports during the Plan period is estimated to have risen from Rs. 1.5 billion ($315 million) to Rs. 2.5 billion ($525 million). Putting together the stated requirements for development imports (i.e. the foreign exchange component of the Plan) and maintenance imports (but excluding PL 480), the aid requirements have risen from 42% of the Plan to 48% of the Plan.

90. At the same time Pakistan will be receiving external aid for the execution of the Indus Basin Settlement Plan Works. At present no firm estimates are available for probable expenditure during the Plan period, but preliminary WAPDA estimates indicate that the foreign exchange cost of reimbursable items may amount to Rs. 1,820 million($382 million), while a further Rs. 405 million ($85 million) of foreign exchange would be required for the purchase of rupees. The Planning Commission has adopted these estimates for planning purposes, and has incorporated them in its statement of over-all aid requirements (excluding PL 480), which can be summarized in the following table.

	Original		Revised	
	Rs.	$	Rs.	$
	(millions)			
Maintenance support	1,500	315	2,500	525
Development imports	6,500	1,366	8,450	1,775
Indus Basin works:				
Foreign exchange expenditures	1,330	279	1,820 a/	382
Purchase of rupees	400	84	405 a/	85
	9,730	2,044	13,175	2,767

a/ Preliminary WAPDA estimates. Foreign exchange expenditures are for reimbursable items only. Non-reimbursable items (Rs. 125 million) could be financed by part of the free exchange used to purchase rupees.

General Appraisal

91. The Plan revision was received by the Mission after it had left Pakistan and then only in general terms both as regards the justification

for the increase in costs and the changes in specific projects and programs. Moreover, the revision is probably not yet complete. At this stage, therefore, only tentative judgments regarding the size and content of the Plan can be expressed.

92. The Mission has no serious doubts that it would be possible to raise the domestic financial resources required for the enlarged Plan, provided that the public sector realizes revenue surpluses on the scale now contemplated. The proviso is highly dependent on the receipt of increased commodity aid since the higher receipts of customs duties and sales tax are partly predicated upon this assumption.

93. The Mission does, however, entertain doubts regarding Pakistan's ability to implement a Plan of a significantly increased physical size, particularly in some sectors, as will be apparent in succeeding chapters of this report. Those chapters discuss the difficulties which are being encountered in implementing development programs and point to administrative and technical shortcomings sufficiently grave to cause concern. It is apparent that in practically all sectors there are shortages of skilled and experienced personnel. This is true even in private industry; for example, the chapter on industry identifies the lack of skilled personnel at the lower management foreman and maintenance foreman level as one of the most difficult problems facing industrialization in Pakistan today. Moreover, the Indus Basin Settlement Plan Works will simultaneously be making demands upon the available supply of skilled labor. It therefore appears that any sizeable enlargement of physical objectives in the revised Plan can only compound the technical and administrative difficulties which were pointed to in the report "Economic Development in Pakistan".

94. It would appear that at present the prevailing tendency is to make additions to the size of the Plan, both by incorporating higher financial costs for comparable physical objectives and by enlarging some physical objectives. Each such addition is apparently justified piecemeal, without reference to a predetermined framework of financial and real resources likely to be available. At least so far, little downward revision has been made in any part of the Plan. In fact, the only activities for which cost has been revised downwards are in the agricultural sector, where plant protection, agricultural extension and range management account for a total reduction of Rs. 14.8 million. The Mission believes that in re-examining the Plan, the Pakistani authorities should carefully consider whether adoption of enlarged physical objectives in some activities should not be wholly or partially offset by reductions of such objectives for other activities within the Plan period. It is not surprising that, with the passage of time, increase of knowledge should lead to a reallocation of priorities with the Plan, but an elevation of priority in one activity necessarily leads to a diminution of priority for another.

95. In the succeeding chapters discussing specific sectors, this report points to some projects and programs, the execution of which the Mission believes could be postponed without grave effects. The Mission

therefore suggests that the Pakistan authorities should in their continuing re-examination of the Plan consider whether the pressure on administrative and technical resources could be relieved by rephasing expenditures on such projects and programs. Moreover, the Mission would urge that all new projects which require a long period before their benefits accrue should be reconsidered, to determine whether they could at this time be replaced by projects which would yield quicker results. For example, there are geographic areas where irrigation can be introduced by the use of pumps rather than by the construction of barrages, without prejudice to the future construction of a barrage to serve the same area.

96. It is true that the annual growth in Plan expenditures means that the period of greatest technical and administrative strain falls in the later years rather than immediately. By then, Pakistan should possess an enlarged endowment of technical and administrative skills, provided that the program for education and training of human resources is vigorously undertaken in the early years of the Plan. However, it should be pointed out that the original Plan already incorporated progressive annual increases of expenditures and that the revision has accelerated these increases, making the need for training of the requisite skills even more immediate.

97. The Mission wishes to draw attention to a potential danger inherent in one aspect of the Plan revision. During the First Plan period the private sector, and particularly the private industrial sector, exceeded Plan expectations, but nevertheless there was a considerable amount of underutilized capacity due to shortages of imported raw materials and spare parts. The Second Plan revision has increased the estimate of private sector investments by Rs. 880 million or 15% above the original Plan allocation. Rs. 270 million, or 30% of this increase, is programed for the coming year 1961/62. Thus the Planning authorities are envisaging an accelerated expansion of industrial capacity. While this may be highly desirable in itself, it raises the question of ability to finance the resulting enlarged requirements for imported raw materials and spare parts. On present expectations regarding export growth, this may well mean that Pakistan's future requirements for aid-financed maintenance imports will progressively expand. Unless the total foreign aid received by Pakistan increases correspondingly, Pakistan may in the future confront the necessity of choosing between the use of aid for investment and its use for maintenance imports.

98. Taking all factors into account, the Mission's general conclusion is that it cannot at this time endorse the revised Plan, aspects of which it is not difficult to criticize. On the other hand, the Mission is aware of the vital need of massive efforts for economic development in Pakistan. Its misgivings are not about those needs, but about the feasibility of the scale of the proposals now being made to meet them and the desirability of some of those proposals at the present time. The Mission suggests that the Pakistan authorities be encouraged to continue realistic examination of development requirements and development activities and be prepared to

undertake further revisions of the Plan, taking into account available real and financial resources.

99. In reaching this general conclusion the Mission has not overlooked the fact that since October 1958 the authorities have consistently followed sound financial and economic policies which are resulting in a considerable stimulus to economic growth in both the public and the private sector. The Mission's concern is not with what might be called the daily conduct of general policies, but with the scale and to some extent the content of recent longer-range planning. The Mission is well aware of the notable economic progress Pakistan has achieved in the past; the more detailed comments or criticisms which appear in Part II of this report are not intended to diminish acknowledgment of that progress, but to point to obstacles the removal of which the Mission believes would accelerate economic growth.

ECONOMIC PROSPECTS

Short-range

100. Pakistan's short-range economic prospects are reasonably good. The steps taken during the past year to reduce Government controls affecting the private sector can be expected to have beneficial effects. The reduction in the range of price controls should work to improve incentives for agricultural and industrial production and to reduce the attractiveness of hoarding and grey marketing. The liberalization of imports should permit better utilization of existing industrial capacity, while the export policies discussed in the first chapter should continue to encourage non-traditional exports.

101. The private sector already shows many signs of expansion. Tax revisions and other incentives for private investment are beginning to produce the response sought; with the greatly improved supply of raw materials and last year's series of removals of price and distribution controls, the propensity to save and invest appears to be rising. As pointed out in paragraphs 82 and 86, the current trend is towards a rate of savings, public and private, in excess of previous expectations. In the current financial year, the expansion in the turnover of the economy led to an upward revision of estimated budgetary resources, and although expenditures also increased, they rose less than revenues. There is no reason to believe that this trend of rising revenue surplus should be reversed, at least not in the next year.

102. These factors would support the view that, assuming that sufficient foreign exchange became available, it would not be too difficult to meet the financial requirements in domestic currency for the next few years at least, without resort to inflation.

103. The principal monetary danger continues to be a disproportionate expansion of credit for the private sector. Expansion of private credit over the last twelve months or so, while large, appears to have been absorbed without inflationary consequences for the reasons pointed out in the previous chapter. However, a continued expansion of private credit at the past rate would create inflationary dangers, since many of these reasons are "once over" and will not operate in the future. The monetary effect of Government finance has on the whole been neutral and it is the expressed policy of Government that over-all budgetary deficit should continue to be avoided.

104. Exchange reserves are currently (January 31, 1961) at a relatively high level, namely $290 million, corresponding to ten months of 1959/60's non-aided merchandise imports. An important question is whether the recent successive liberalizations of imports will lead to a drawdown of exchange reserves. Up to February 1961, there was no noticeable tendency in this direction but this may be due to a time-lag in importers taking advantage

of their new opportunities. Earlier in this report (paragraph 72) it was concluded that generally the estimates of foreign exchange earnings are reasonably well-founded, at least for the next two years. These estimates project current account earnings of somewhat over $450 million in each of the next two years or at the same level as in 1960/61 - an expected fall in earnings from exports of raw jute and jute manufactures (due to price decline) being offset by an increase in earnings from other items. On the other hand, it was concluded in paragraph 74 that with the present import policy the projections of non-development imports may be too low. However, should this prove to be the case and in consequence exchange reserves start falling, the Government possesses the administrative machinery to readily reduce non-development imports to the appropriate extent.

105. It should be pointed out that at all times Pakistan's short-term economic prospects are heavily dependent upon weather conditions. Should these cause bad results in either food crops or industrial crops, the consequences for the internal and external financial position can be both quick and severe.

Long-range

106. The previous report, "Economic Development in Pakistan", stated that "Pakistan has a natural resource base capable of supporting a higher standard of living, even if no important minerals are discovered. Improved water management and use in both East and West Pakistan could almost by itself lead to a considerable increase in food and commercial crops. The diversity between East and West Pakistan, which early in Pakistan's history was thought by many to constitute a weakness, may in time prove to be a strength, each Wing becoming complementary to the other. Pakistan has begun to lay the foundations of an industrial complex, and future industrial growth can be expected to benefit from economies arising from the growth of mutually complementary industries."

107. Nothing has subsequently transpired which would vary that conclusion. Indeed, subsequent events have somewhat strengthened it.

108. As regards natural resources, some new gas fields have been found in East Pakistan; their extent is not at present known but they may prove to be extensive. Indications have also been reported of deposits of good quality coal in East Pakistan, although again the extent of the reserves is not yet proven. Exploration for petroleum is continuing, and has been somewhat stepped up as result of a recent agreement for technical and financial aid from the Soviet Union.

109. Agricultural progress may have been somewhat better than described in the last report. It now appears that production figures were previously understated, and the Mission found encouraging evidence of the beginning of improved agricultural practices. If the improved water management and use mentioned in the last report were combined with fertilizer usage and other improved practices which this would facilitate, markedly greater increases in production would be possible. The Mission concluded that the Plan targets for agriculture are attainable and would be attained or exceeded if the program envisaged in the Plan were effectively carried out, although it has serious reservations on this last and vital point. Vigorous implementation of the reforms in hand and of the principal recommendations of the Food and Agriculture Commission, together with a concentration on immediate objectives, would do much to remove those reservations.

110. The private sector, particularly the private industrial sector, is displaying considerable growth. It appears that the industrial targets for the First Plan were exceeded and there seems to be little doubt the targets for the Second Plan could also be exceeded without great difficulty. Desirable as this may be in itself, however, the Mission sees the possibility of subsequent difficulties in supplying industry with its expanded requirements for imported raw materials and spare parts.

111. Pakistan's foreign exchange earnings are expected to increase less than the looked-for growth of national income; the revised projection of foreign exchange earnings shows an increase of 15% in those earnings during the Second Plan period compared with an increase of national income projected at 20% in the original Plan. At the end of the Plan period, the revised estimate of exchange earnings is only 8% of the original projection for national income in the same year. It is not surprising that the proportion of foreign exchange earnings to national income should fall in a developing country, but 8% is a very low proportion of exchange earnings to national income and one which makes very difficult the achievement of self-supporting growth.

112. It is clear that Pakistan cannot simultaneously supply a considerably enlarged industrial capacity with its import requirements and also secure the imports of investment goods needed for further economic growth from her own exchange resources alone. It cannot be expected that the Pakistan economy will reach the stage of self-supporting growth by the end of the Second Plan. Foreign aid in substantial amounts is likely to be required for a considerable time. It was pointed out in the last report, and it is still true, that the date when Pakistan's economy will achieve independent viability cannot be forecast or even guessed, although it can reasonably be said that it is not impossible for Pakistan ultimately to achieve this goal.

113. In Pakistan, as in all countries, the greatest resource is the people themselves. The Pakistan people are shrewd and hardworking and some

have already shown themselves capable of effectively adopting new methods. The spread of general education and specialized training and the enlargement of the cadre of persons with medium and higher technical and administrative skills cannot fail to have considerable impact on the levels of output and income.

PART II

AGRICULTURAL PRODUCTION AND PROSPECTS

General

114. The two provinces, East Pakistan and West Pakistan, are wide apart geographically (some 1200 air miles) and almost totally different agriculturally. The marked differences between the two parts of the country result chiefly from the abundant monsoon rainfall of East Pakistan contrasted with the arid nature of West Pakistan. Within each province there is a considerable range of conditions and practices. The range is greater in West Pakistan where rainfall and the availability of irrigation are the chief determinants. In East Pakistan, where most of the land is less than 50 feet above sea level, rainfall and degree of susceptibility to flooding are the main determinants.

115. East Pakistan has a cultivated area of 22 million acres within a total land area of 35.4 million acres. It is a flat deltaic plain, laced by a network of watercourses with shifting and unstable beds. About one third of the cultivated area is subject to flooding in a normal year. There is as yet very little irrigation. Alternating floods and droughts and intrusion of seawater on the potentially fertile coastal flats are amongst the main problems. Flood control, drainage and irrigation offer great scope and could lead to higher yields, greater security and a big extension of double cropping. The principal crops are: rice (21 million acres), jute (1.4 million acres), tea (78,000 acres) and sugar cane (281,000 acres).

116. West Pakistan has a cultivated area of about 40 million acres within a total land area of 198 million acres. Apart from the northern part of the province the country is mostly arid or semi-arid and some 58% of the cultivated area is dependent on irrigation. Water is the scarce factor. Even in irrigated tracts cropping is not intensive and substantial areas are left fallow because of insufficient water. Nearly all the cultivated area lies in the Indus Basin and outside this the country is mainly inferior rangeland used in varying degrees for grazing but on the whole very badly. In the dry farming areas soil erosion is a major problem. In the irrigated areas waterlogging and salinity is reducing production at an alarming rate. The principal crops in West Pakistan are: wheat (12 million acres), sugar cane (1 million acres) and cotton (3.3 million acres).

117. Features which are common to both provinces include: intense population pressure on land; small farms, the average size being about three acres; subsistence farming, only about 25% of the food crops enter the monetized market; virtually no mechanization; and a high rate of illiteracy. Much of the country has been endowed with good soils but the farming systems are exhaustive and standards of husbandry are low. This has led to the position where, even with favorable basic conditions of soil, water (natural or controlled) and abundant labor, yields are amongst the lowest in the world. Undoubtedly there are special problems, but there are enough examples of individuals getting returns several times the average to give firm indication that very big increases are possible.

118. These small-scale, tradition bound and mostly illiterate farmers represent a high proportion of the country's population. With no reserves of food or finance, living on the margin of subsistence they cannot be expected to be innovators or take risks. On the other hand, the Mission formed the opinion that they were shrewd and, given proper support and convincing leadership - with necessity pressing hard - it should be possible to get widespread adoption of the more obvious and less demanding forms of improvement. These include use of fertilizer, better water use and improved standards of husbandry. It must be kept in mind that survival is the dominant consideration. The high and growing population pressure on land is demanding higher output and so far has led to more mono-culture and declining fertility. In 1959/60 in East Pakistan 90% of the cropped area was under food grains and in West Pakistan 70%. Very little fertilizer is applied to foodgrains and this is virtually limited to nitrogen. Inadequate amounts of dung and organic matter are returned to the soil.

119. The breaking of this cycle of low input, low standards of husbandry and low output must be the first objective. Only when production reaches a level that gives some room to maneuver can more sophisticated measures of improvement be introduced. To break this cycle Government has given high priority to agricultural development in both the First and Second Five-Year Plans.

The First Five-Year Plan

120. The First Plan started officially in June 1955 but there is general agreement that it did not really become effective until well into 1957. The Plan provided public expenditures of Rs. 1,504 million for agricultural development (including Village AID) and Rs. 2,697 million for water and power development. These together amounted to 45% of the total plan allocation for public development expenditures of Rs. 9,349 million.

121. The financial targets were only met to the extent of 52% in the case of agriculture (Rs. 784 million) and 68% in the case of water and power (Rs. 1,835 million), though the power element was overspent. The targets for physical inputs also were only met in part, the performance being somewhat uneven, but showing an encouraging rate of acceleration in each of the last three years.

122. It was calculated that the planned rate of financial and physical investment, together with all the other motivating forces put to work, would result in an increase in production by 1959/60 as shown in col. 3 and 4 of the table below. The most important single objective was to increase foodgrains by 9%.

Agricultural Production Targets and Achievements during the First Plan

Crop	Base Production	Planned Production by 1959/60	Planned Increase over Base Period	5-Yr. Average Compared with Base Period	1959/60 Production Compared with Base Period
1.	2.	3.	4.	5.	6.
	----(in '000 tons)----		---------- Per Cent ----------		
Rice(cleaned)	8,320	9,000	8	+ 1.0	+ 13.7
Wheat	3,435	3,839	12	+ 6.0	+ 12.8
Maize	395	456	15	+ 17.4	+ 21.5
Other foodgrains	725	781	8	= 3.4	- 3.2
Total foodgrains	12,875	14,076	9	+ 2.7	+ 12.8
Sugar cane	10,600	14,110	33	+ 31.8	+ 33.1
	---(in '000 bales)---		---------- Per Cent ----------		
Cotton	1,630	1,967	21	+ 3.1	+ 1.6
Jute	5,565	6,400	15	+ 3.7	- 0.2

Source: Planning Commission.

123. At the time of evaluation of the Plan early in 1960, the 1959/60 production figures were not available and early estimates were used. Also, in assessing the increase during the Plan period the base period production was compared with the average of the five-year period. Attention should be drawn to the fact that the 1959/60 production figures in many cases proved to be considerably higher than the estimate included in the five-year average. Also, given a rising trend, the five-year average represents the mid-point level, say 1957/58, by which time the Plan had not really got under way. The benefits of the increasing rate of input in the last two years is hardly reflected. Unfortunately no satisfactory way of converting the actual 1959/60 production to "normal conditions" has been developed and so the relative influences of favorable season and increased inputs cannot be accurately assessed. However, if the base period is compared with 1959/60 instead of the five year average, the percentage increase for foodgrains and sugar - which cover 81% of the planted acreage - are above or equal to the targets. Due allowance must of course be made for the fact that it was a favorable year for foodcrops and a bad one for cotton and jute.

124. In addition to these considerations, there is a strong presumption that the actual level of production was considerably higher than that recorded. The 1961 census indicated a higher population figure and a higher rate of growth than those used in the Plan. The higher population figure can only mean that per capita consumption was lower than assumed or that production was higher. Since the former is at a low level (14.5 oz.

grain per day), it is reasonable to assume that production was higher and more so in view of the known bias in the present statistical reporting system. To provide the minimum level of 14.5 oz. of grain per day for the revised population figures would have required a level of production 350,000 tons higher than the estimated requirements at the beginning of the period and 600,000 tons higher by 1959/60.

125. The Mission feels that, although the extent to which it was possible to increase physical and financial inputs proved disappointing, bearing in mind the delayed start, rather more progress in terms of production was made than is generally conceded. The Second Five-Year Plan starts from this improved base and with the advantage of considerable deferred benefits from the accelerating rate of input in the last two years and a promising, if slow, upward trend in production.

The Second Five-Year Plan

126. As in the First Plan, the highest priority is attached to increasing agricultural production and the target rates for inputs and increased production have been considerably accelerated. As set out in the Plan, the agricultural program aims at:

" i) self-sufficiency in basic food production, maintaining, as a minimum, the present levels of foodgrain consumption for the rapidly growing population;

ii) raising of dietary standards through increased supplies of fish, fruits, vegetables, sugar and livestock products;

iii) expanding the output of jute, cotton, tea and forest products to the maximum possible extent;

iv) working towards an export position across the full production front, not excepting foodgrains; and

v) increasing employment opportunity and reducing underemployment in agriculture."

127. Within these broad objectives, highest priority is given to attaining self-sufficiency in foodgrains. The main financial and production inputs to achieve the target increases are set out in the table on page for agriculture and in the table on page for water.

128. The production targets as set forth in the Second Five-Year Plan are shown below:

Important Physical Targets

	Unit	1959/60 1/	1964/65	Percentage Increase
Agricultural Production				
Wheat	'000 tons	3,703	4,329	17
Rice (cleaned)	"	8,341	10,164	22
Other grains	"	1,145	1,428	24
Total Foodgrains	'000 tons	13,189	15,921	21
Jute	'000 bales	6,000	7,300	22
Cotton	"	1,666	2,292	38
Sugar cane	'000 tons	15,430	20,800	35
Fish	"	290	360	24
Water				
New irrigated area (during previous 5 yrs.)	'000 acres	1,082	2,445	-
Improved area (during previous 5 yrs.)	'000 acres	2,570	7,112	-

1/ Plan estimates of "normal" level of expected production in 1959/60.

Recent Development Affecting the Second Five-Year Plan

129. The Second Five-Year Plan was prepared during 1959/60 and adopted in June 1960. Since then, in addition to normal adjustments, there have been some important developments which will affect the scope and direction of agricultural development in the next few years. These include:

130. Conclusion of the Indus Basin Development Fund Agreement

Works proposed under the agreement will entail heavy commitment of resources for construction of settlement works for which no provision is made in the Plan. The agreement provides for replacing water supplied by the three eastern rivers (Ravi, Sutlej and Beas), which are to be diverted to India, with water from the western rivers (Indus, Jhelum and Chenab). This involves the construction of two large storage reservoirs, five new barrages and 388 miles of link canals. The physical works will require 10 to 12 years to complete and will place a heavy burden on Pakistan's financial and physical resources, particularly WAPDA, which is the executing authority.

131. In view of the relatively fixed schedule agreed upon and the international commitments involved, the Indus program will have to be given priority over other works. The expenditures during the Plan period are estimated at Rs. 3,230 million and whilst the ultimate benefits will be considerable, no direct increases in output will be realized during the Plan period.

Increases in the Cost of the Plan

132. Due to changes which have been made and higher costs than estimated in 1959, the cost of the Agricultural Sector of the Plan has increased by Rs. 300 million (12%) and Water and Power by Rs. 1,000 million (29.5%). Additional increases are still under consideration and those, discussed below, are not yet incorporated in the Plan.

Waterlogging and Salinity Master Plan

133. A very recent decision to prepare a master plan to cope with this serious problem will involve commitment of expenditure and physical resources far in excess of the scale envisaged by the Plan. Preliminary indications are that the master plan will involve expenditures in the region of Rs. 5,000 million over a 10-year period. This could result in a substantial addition to the Plan allocation, possibly in the region of Rs. 1,000 to Rs. 1,500 million.

Implementation of Food and Agriculture Commission's Recommendations

134. The decision has been taken to set up two Agricultural Development Corporations - one in each Wing - and the arrangements for giving effect to this decision are under consideration. Until further information is available it is not possible to judge the full implications but if events follow the Commission's recommendations it will involve drastic administrative policy changes, leading to a sharp acceleration of expenditures in the Agricultural and Water Sectors.

135. As envisaged by the Food and Agriculture Commission, these Development Corporations will be strong, independent and businesslike organizations free from the limitations of departmental and civil service procedures. In their respective provinces they will undertake directly most of the supply services (seed, fertilizer, plant protection, credit, etc.) and will actively participate in almost all other supporting activities, taking over or supplementing the functions of existing Government agencies as deemed necessary. They will be the dominant forces in the implementation of agricultural development policy in their respective provinces. It is hoped that they will be able to provide the force and unified direction necessary to put real drive into the production drive and to support this by the rapid development of the essential services and information.

136. Again no clear indication of the additional cost and other resources involved to carry out such an accelerated program have been worked out. The Commission tentatively estimated the increased expenditures during the remaining four years of the Plan at Rs. 564 million plus unspecified sums for irrigation, agricultural credit and co-operative development.

Population Increase

137. The 1961 census indicates that there were almost 4.2 million more people than previously assumed in January 1961. Also, the rate of growth is considerably higher than in the Plan calculations. Assuming a growth rate of 2% and the same standard of nutrition as used in the Plan, the extra population in January 1965 (5.4 million) will require an increased supply of 900,000 tons of foodgrains over the level estimated in the Plan. On the other hand, as indicated earlier, the census also implies that production in 1960 was 600,000 tons higher than assumed in the Plan.

138. Excluding the Indus Basin Settlement Works, all these developments have arisen since the Mission returned from Pakistan. The details of the major programs have not yet been worked out so it is impossible to form any firm views on how far they can be blended with the Plan program. Clearly, intentions involving an increased expenditure amounting in aggregate to something like Rs. 3,000 million with all that this implies in terms of human and physical resources, cannot simply be added to these already heavily burdened sectors. There will have to be a major reappraisal and some compromise in terms of immediate and long-term objectives and a re-allocation of priorities.

139. The Mission is not in a position to judge what effects these proposed, but as yet undefined, increased inputs might have on production levels during the Plan period. However, if the Mission's assumption regarding the 1960 level of production in relation to the increased population is accepted the increase in foodgrains to be achieved during the Plan period (table on page) need not be materially affected. It becomes in the region of 2.2 million tons compared with 2.7 million tons in the Plan but the end point will be 16.8 million tons instead of 15.9 million tons.

140. The Mission's view is that the Plan targets are attainable and would be attained or exceeded if the program as envisaged in the Plan were effectively carried out. It is on this last and vital point that we have serious reservations. Acknowledging the progress made, we still doubt whether the existing agencies, without more vigorous reorganization and firmer direction than is envisaged in the normal course, are capable of implementing the full intentions of the Plan. This applies particularly to the extension services, the organization of the essential supplies, irrigation and colonization. The Mission feels strongly that there should be maximum concentration of effort on a more limited range of objectives to ensure that the most immediately essential projects are in fact fully implemented and rapidly exploited. In other words, the total objectives contained in all the schemes in hand (good and necessary as most of them are),

should be spread over a longer period. For the immediate future a concentration on fertilizers, better seed, credit in kind, specialized extension and those irrigation and colonization projects which can yield the biggest immediate returns. The benefits of the increased productivity so induced, and the experience gained would then be available to assist and encourage the later attainment of the wider objectives.

141. The Agricultural Development Corporations will no doubt be able to make a big contribution in this direction. We would strongly urge that their immediate objectives should be heavily weighted in favor of the supply services and firm management of colonization and development in one or two of the more promising or new areas becoming available for exploitation. Areas for such special treatment might be Ghulam Mohammad Barrage, Ganges Kobadak and salinity control projects. If the enabling services are concentrated on supply and promising projects and the extension and motivating influences are strongly applied to a limited range of priorities (seed, fertilizer, water use and better husbandry), the urgent task of raising production to the target levels should be achieved. The longer term or more obstinate development projects can then be tackled from a better base and employing the greater number of trained and experienced people increasingly becoming available.

142. This concentrated application of resources will require firm basic conviction and policy decision and then strong and determined direction. Who should provide the latter, Development Corporation, Government Department or special agency, must be decided in respect of each function. The decision should be quite objective and care should be taken to avoid unnecessary disturbance. When areas of responsibility have been decided, the executing authority must be given all reasonable facilities and above all, within its terms of reference, freedom to act decisively. The almost unbelievable delays which have occurred through lack of inter-departmental co-operation, difficulty in reaching essential decisions and failure to reconcile conflicting departmental interests must be eliminated.

Development Expenditures

Agriculture

143. The original plan drawn up in 1959/60 provided for a total expenditure for agriculture of Rs. 2,540 million, including Rs. 1,660 million in the Public Sector and Rs. 880 million in the Private Sector. During April 1961 this was revised and a total of Rs. 300 million added, making the Plan allocation now Rs. 2,840 million, of which Rs. 1,935 million in the Public Sector is distributed as follows:

Public Sector Development Expenditure in Agriculture
1960/61 to 1964/65

(million rupees)

	East Pakistan	West Pakistan	Center	Total
Manures and fertilizers a/	161	157	-	318
Plant protection a/	10	13	219 b/	242
Seed multiplication & distribution a/	96	67	-	163
Mechanization a/	32	31	-	63
Foodgrain storage	80	34	114	228
Agricultural extension	12	8	c/	20
" research	7	17	-	24
" education	46	54	-	100
Colonization a/	20	130	-	150
Animal husbandry a/	44	60	27	132
Forestry a/	66	71	15	151
Fisheries a/	16	4	30	50
Land reforms a/	57	19	-	76
Crash program	10	24	-	34
Other	5	50	43	184
Total	662	739	448	1,935 d/

a/ After deducting recoveries.
b/ Includes cost of pesticides to be used by the provinces.
c/ Less than half a million rupees.
d/ Excludes Rs. 200 million of rural credit which is shown as a capital liability on Government account.

Source: Second Plan amended to April 1961.

144. The Food and Agriculture Commission's recommendations, as previously explained, imply an increase in expenditure within the Plan period. This policy decision has not been taken into account in the Plan allocation revision referred to above. The situation must, therefore, be regarded as fluid. The implication is that, within limits, the increase in agricultural production could be in proportion to the resources invested. Whilst the Mission agrees up to a point, a program of the size implied would go well beyond the human and physical resources available within the Plan period and some adjustment into immediate and longer term objectives will have to be worked out.

145. The current Plan allocation of Rs. 1,935 million in the Public Sector is probably a reasonable but minimum allocation when related to the Plan targets and having regard to what is feasible within the overall Plan resources. Some adjustments within the total will be necessary to accommodate the changes envisaged and to bring about the concentration of effort referred to earlier.

146. Fertilizers, plant protection and seed multiplication together amount to Rs. 723 million, or 37% of the total. These three have a direct bearing on immediate production and subject only to the limitations of sound application the Mission would recommend expansion - particularly of fertilizer - to keep pace with the absorptive capacity of the industry. In due course, however, when credit facilities have been established and with the aid of improved extension, farmers have become convinced of the economic advantages of these factors, it should be possible to reduce the subsidy and make more funds available for extension and research. In the case of plant protection, the service at present is provided by the Government and recovery is negligible. The Mission considers that the responsibility for routine plant protection work should be transferred to the farmers and, though a subsidy may be necessary for some time, the rate of recovery should be stepped up very steeply. In the case of seed multiplication marginal savings may be possible but the important consideration is to concentrate on getting better value for the expenditure and to extend private enterprise multiplication and eventually distribution of seed.

147. The Mission suggests that all the other sections should also be looked at again from the point of view of how far the proposed work fits in with the main production drive. Anything which is outside this category should be judged on its merits but very critically if it competes at all strongly with the main objectives for any of the scarce resources.

148. The Mission also suggests that in the case of plant protection and animal husbandry there should be a transfer of both work and personnel to the extension service and appropriate financial adjustment would accompany any such move.

149. It appears to the Mission that the three sections most inadequately catered for in the original allocation were Agricultural Education, Research and Extension. The Agricultural Education allocation has since been more than doubled (to Rs. 100 million) which the Mission agrees with in principle. Any funds or trained personnel or transportation which can be pruned from less essential projects, either now or in the light of experience as the Plan develops, could well be transferred to Extension and Research. In the Mission's view, apart from special projects having a direct bearing on immediate objectives, Extension should have priority.

Water Development

150. The Second Plan allocation of Rs. 3,140 million for water and power development represents an annual rate of expenditures about 18% above the level reached in 1959/60, the last year of the First Plan. A revised estimate prepared in April 1961 increases these allocations to Rs. 4,140 million, or an annual rate 56% higher than in 1959/60. In addition, the Indus Settlement Works are expected - on present tentative estimates by WAPDA - to require about Rs. 3,230 million during the Plan period, bringing total public expenditures for water and power development to Rs. 7,370 million or roughly the same as all public development expenditures during the First Plan. Expenditures relating primarily to water development (excluding Indus) amount to approximately Rs. 2,377 million on the basis of the latest estimates.

Public Expenditures for Water Development

(million rupees)

	Second Plan Allocations	Increases	Revised Allocations
West Pakistan			
Kotri barrage (G.M.barrage)	73.30	-	73.30
Gudu barrage	174.70	10.0	184.70
Taunsa barrage	14.40		14.40
Thal project	6.20		6.20
Warsak	11.90		11.90
Other irrigation schemes	75.23		75.23
Drainage, reclamation & tubewells	228.80	107.0	335.80
Flood regulation	64.70		64.70
Open canals	110.00		110.00
Investigations and surveys	76.60	11.0	87.60
Machinery pool	30.00	30.0	60.00
Rawal Dam	-	9.0	9.00
Kurram Garhi	-	30.0	30.00
	865.83	197.0	1,062.83
East Pakistan			
Ganges Kobadak (Kushtia)	120.00	20.0	140.00
" " (2nd Unit)	120.00		120.00
Teesta barrage	170.00		170.00
Khulna multipurpose	161.40		161.40
Reclamation of Hoar area	50.00		50.00
Investigations and surveys	71.07		71.07
Flood regulation	145.49	11.0	156.49
Tidal embankments	100.00	160.0	260.00
Ground water development and pump irrigation	24.00		24.00
Tengon irrigation	54.00		54.00
Machinery pool	30.00		30.00
Other	66.99	10.0	76.99
	1,112.95	201.0	1,313.95
Sub-Total	1,978.78	398.0	2,376.78
Indus Settlement Plan			3,230.00
Grand Total	1,978.78	398.0	5,606.78

151. In addition to this program, Government has recently called for a master plan to meet the serious problem of waterlogging and salinity which has already seriously reduced yields over large areas in West Pakistan and put considerable areas out of production. Government has recently decided to carry out a program of Rs. 4,500 to Rs. 5,500 million over a 10-year period. Amounts already in the Second Plan for combatting waterlogging and salinity may possibly be increased by an additional Rs. 1,000 to Rs. 1,500 million as a result of a full scale effort to meet this problem.

152. The capacity for carrying out water and power development projects has been substantially increased with the creation of the autonomous Water and Power Development Authorities (WAPDA) in each Wing and the employment of consultants and contractors. The sharp increase in expenditures during the past two years indicates that a program of the size originally proposed under the Second Plan would have been feasible. The much higher expenditures now projected there create some doubt whether the program can be fully carried out even with large-scale employment of outside technical, administrative and managerial talent.

West Pakistan

153. Expenditures are largely for completion of projects which are already underway. Only one third of the total expenditures are for new projects, almost all of which consist of drainage, reclamation and tubewell projects designed to meet the pressing problem of waterlogging and salinity. Considering the advanced stage of many of the ongoing projects and the importance of improved water supply as a factor in increasing yields in West Pakistan, it is difficult to cut the proposed program materially without risking investments already made. Since the Indus Settlement Plan works must be given top priority it will be necessary to re-assess priorities and defer or rephase some expenditures, with a view toward assuring completion of the most urgent projects. The Mission assumes that the full implications of changes in the water use pattern brought about by the Indus Settlement Works will be taken into account in the current survey of water resources. The agricultural aspects as well as the engineering considerations should be fully investigated and plans prepared well in advance.

154. As a general principle, the Mission favors giving priority to those projects which can be expected to yield quick results. This would call for concentration on those ongoing projects which are nearing completion, such as the Ghulam Mohammad Barrage and the Taunsa Barrage areas, deferring colonization and land development on the newer projects such as Gudu, and drastically reducing further development of marginal lands in the Thal. New projects such as the Karachi Irrigation Project, Tanda Dam and Khanpur Dam should probably be deferred. The program for controlling waterlogging and salinity through drainage, tubewells and reclamation deals primarily with existing irrigation systems and can be expected to give relatively quick benefits as soon as the engineering works are completed. Provided results of the first major tubewell projects (the Rechna Doab Salinity Control and Reclamation Project) bear out these expectations the Mission feels that some acceleration in the rate of expenditures in this category may be possible.

East Pakistan

155. A much larger proportion of the projects are new and consequently there is much more scope for re-assessing priorities. On the other hand, because of limited investment in the past there is much more scope and need for development. There are also a number of quick maturing projects with favorable cost benefit ratios. At the same time, however, the Plan includes a number of large-scale irrigation developments of the type which in the past have proved to be slow maturing and expensive due to inadequate studies and unfortunate mistakes. A number of these might well be deferred for the time being to allow for more careful engineering and agricultural studies to prepare the way for more rapid implementation at a later stage.

156. For the time being, every effort should be made to complete projects for better control of flood waters and salt water intrusion and pump irrigation. Relatively little work has been done along these lines despite strong recommendations by the United Nations Water Control Mission in 1956/57. Experience in other countries, such as Burma, indicates that these types of projects are relatively inexpensive, require relatively simple engineering, can be quickly executed and can yield extremely high benefits. The most promising projects include the Coastal Embankments, the poldering aspects of the Khulna Multipurpose Project and various small flood embankment and drainage improvement schemes. The program of the Department of Agriculture and WAPDA for development of small pumps in the hoar areas[1] and the Rajshahi Pabna areas also offer considerable promise. In the Mission's view, all of these projects should have the highest priority.

157. The large multipurpose developments should be deferred for the time being. Due to the many changes and delays, the Kushtia Unit of the Ganges Kobadak project is now expected to be completed in 1963, much later and at a much higher cost than initially envisaged. In view of the large sums already invested and existing contractual obligations, the Mission feels that the project should be completed provided that outstanding uncertainties have been resolved. Every effort should be made to bring about quick and effective use of the additional water supplies which will become available. Stage II of the Ganges Kobadak, the irrigation aspects of Khulna Multipurpose, the Teesta Barrage, the Brahmaputra Multipurpose, the Meghna, Tippera Chittagong and the Sangu should probably be deferred until the Third Plan in order to permit concentration on quicker maturing projects and to permit more adequate preparation.

Factors Affecting Production Prospects

158. The need is for a rapid increase in production. The first aim must be increased output through higher yields from the existing farms and farming patterns. Of rapidly increasing importance is the contribution from newly developed or vastly improved land. Reforms of various kinds in progress or contemplated will add progressively.

1/ Low-lying areas which remain under water during the wet season.

159. Some of the factors having a direct bearing on production which can be applied at once include: better water supply and utilization in developed areas, improved seed, fertilizers and manures, plant protection, better husbandry practices and readily available credit. Factors of a longer term character which cannot be so quickly or generally applied include: development of water resources and development of land resources. In a rather different category come: improved agricultural education, research and extension, land reform, rural credit and co-operative farming and land management.

160. The Mission appreciates that all the above factors are interdependent and that a proper balance must be maintained in their application but in our view the two outstanding ones are fertilizer and water. If the position could be reached where most of the irrigated area had an adequate supply of water and, in conjunction with other good husbandry practices the cropped area was receiving a reasonable application of balanced fertilizer, much of the immediate problem of increased production would be overcome. The provision of this combination - water and fertilizer - to the maximum area should be the first objective.

161. The key person is of course the farmer but he cannot be left to his own devices. A strong motivating and supporting organization is essential and the Mission feels strongly that there is scope for great improvement in this sphere. In particular, there is need for further organizational and administrative reform which amongst other things, should provide improved status for agricultural personnel. There must be more delegation of authority and a substitution of initiative for control. Real efforts must be made to find the right balance between administrative, technical and operational personnel. The establishment of the new Agricultural Development Corporation should do much towards meeting these needs. Reforms alone will not, however, achieve the purpose. The various agencies, including the Development Corporations, Government departments and the Basic Democracies must co-operate in pursuing the common objective. In the Mission's view a strong and effective organization for the implementation of the measures proposed is most important.

GENERAL INDUSTRIAL PROBLEMS

162. Industry is of very recent growth in Pakistan. Before Partition in 1947 there were virtually no industries in the territories which now comprise the two Wings of the country, and industrial management and labor were very scarce. Moreover, the resource base was and still is slender. Few minerals have so far been found or, like coal and iron ore, are restricted to very small quantities of inferior quality. Natural gas in West Pakistan is the only proven resource of considerable value. Prolonged prospecting for petroleum has yielded meagre results.

163. Even after a decade of rapid growth, industry still plays only a modest role in the national economy, with all manufacturing at present around 14% of Gross National Product and large-scale industry only 8%. In terms of employment, large-scale industry employs only about 400,000 persons, as compared with over 19 million in agriculture and a total labor force of nearly 30 million. Cotton textiles are by far the most important industry accounting for about 45% of large-scale industrial production, and Rs. 200 million or about 12% of the country's exports in 1959/60. Jute manufacturing is becoming increasingly important, now accounting for about 12% of exports and 8% of total production in large-scale industry.

164. Industry is predominantly in the hands of private enterprise. It is the basic policy of the Government to continue to leave the establishment and development of industry to private enterprise. The Government has on many occasions explicitly stated that in its view the entrepreneur has a key role to play in the industrialization of the country. On the other hand, the Government is prepared to undertake the development of essential industries itself if for one reason or another private initiative does not come forward. The leading cases where the State has felt compelled to take the lead are the fertilizer, shipbuilding, jute, sugar and the paper and board industries. Even in these industries it has been the aim of the Government to transfer the enterprises to private hands as soon as possible, and this is being done. The instrument for Government promotion of industry is the Pakistan Industrial Development Corporation (PIDC).

165. In the Second Plan a set of criteria has been set forth for the development of industry. In general, the Government intends to let the industrial pattern respond to market prices and not to make it adhere to a rigid plan. Nevertheless, through the apparatus of public sanctioning for the setting up of industrial units, and import licensing, the Government exercise an important degree of control over the direction of industrialization. It is intended that industries will be favored which make the largest net contribution to national income per unit of investment. However, industries will also be preferred which result in net increase of foreign exchange earnings, use indigenous raw materials, make certain types of producer goods which will reduce the import component of future development expenditure and produce essential consumer goods instead of non-essentials. Fuller utilization of existing industrial capacity is to be given general preference over the creation of new capacity. Medium and

small industries are to be especially encouraged. Though limitations are imposed on their expansion by market considerations and the shortage of technical and managerial skills, though investment per unit of output may be as high or higher as in large-scale industry, and though working conditions are on the whole inferior, the Government takes the view that there are countervailing social advantages in providing employment and spreading industrialization through small units. The Mission would merely point out that some of these criteria would be difficult to reconcile with each other.

166. No industry is exclusively reserved for the public sector, and in some branches both public and private investment is envisaged. The Second Plan document introduces the concept of the semi-public sector by which is meant Government-sponsored corporations drawing their finance both from the public and the private sector, such as the Pakistan Industrial Development Corporation (PIDC) and the Small Industries Corporations (SIC).

167. Investment in industry during recent years has been modest but increasing at a rather rapid rate. The planned allocation for industry in the First Plan amounted to Rs. 3,215 million; Rs. 1,480 million in the public sector and Rs. 1,735 million in the private sector. Actual investment however, is estimated to have been only Rs. 750 million and Rs. 1,100 million respectively. But, despite the fact that the target figures for investment were not reached, production in large and medium-scale industry rose by more than 80% between 1954 and 1959, while the Plan target was for a rise of only 65%. By contrast with the increase in output in large- and medium-scale industries, little progress was made in the small and cottage industries.

168. The Second Plan aims at an increase in production of over 60% in large- and medium-scale industry, and of 25% in small-scale and cottage industry. This represents a rise in the contribution to Gross National Product from 8% to 12% for large-scale industry alone, and from 14% to 17% for manufacturing as a whole.

169. The employment effect of industrial expansion will be relatively small, with no significant contribution expected towards the absorption of the excess labor force, as industrial employment is projected to rise only from 440,000 to 628,000. Total fixed investment in industry is to amount to Rs. 3,390 million under the Second Plan, the foreign exchange component of which is assessed at Rs. 1,855 million. The private sector is to invest Rs. 2,220 million and the public sector Rs. 1,170 million. In addition, Plan provision is made for Rs.660 million of working capital, which brings the industrial program to a total of Rs. 4,050 million.

170. The most important industries included in the Plan are textiles, Rs. 728 million, food manufacturing Rs. 375 million, fertilizers Rs. 330 million, cement Rs. 210 million, steel Rs. 325 million and oil refining Rs. 165 million. About Rs. 325 million are included for small industries and industrial estates. The amount allocated for industry has recently been revised upward. Generally, according to the Planning Commission, there has been a rise in price of some of the projects by 15%, adding about

Rs. 450 million to the cost of the plan. It is also estimated that the requirements for working capital have been increased by about Rs. 270 million. With the addition of other new projects, the total industrial allocation has now been increased to Rs. 5,120 million. Some representative physical targets of the Plan are indicated in the table below:

Physical Production Targets in Large and Medium Scale Industries Under the Second Five-Year Plan

Industry	Unit	1959-60	1964-65
Food manufacturing:			
White sugar	Tons	150,000	300,000
Edible vegetable oils	"	150,000	250,000
Vegetable ghee		22,000	50,000
Tea	Thousand lbs.	54,000 a/	64,000
Cigarettes	Million	9,000	15,000
Textiles:			
Cotton spinning	Thousand lbs.	380,000	520,000
Jute manufactures	Tons	250,000	380,000
Paper and board:			
Paper	Tons	40,000	80,000
Board	"	13,000	25,000
Chemical industries:			
Ammonium sulphate	Tons	42,000	50,000
Superphosphate	"	1,500	18,000
Ammonium nitrate	"	...	103,000
Urea	"	...	176,000
Soda ash	"	25,000	74,000
Caustic soda	"	4,500	35,000
Non-metallic minerals:			
Cement	Thousand tons	1,050	3,000

a/ Average production during 1955/56 to 1959/60; production in 1959/60 is 57 million lbs.

170. The Planning Commission has attempted an overall assessment of the impact of the industrial program on the balance of payments inasmuch as the Plan for industrial development is partly aimed at reducing the pressure on the balance of payments. Industrial imports are expected to continue to grow as a consequence of the rise in population and improving living standards. On the other hand, exports and manufactured import substitutes will increase as the Plan is carried out. The net effect of the envisaged expansion in industrial production is expected by the Planning Authorities to result in a favorable effect on the balance of payments of about 40% of the current level of non-development imports. In their balance of payments projections for the Second Plan period the Planning Authorities have placed considerable reliance on the ability of domestic manufactures increasingly to replace imported goods, particularly consumer goods and processed raw materials such as chemicals and artificial fibers. The Mission, however, has some doubts as to whether this can be achieved at the rate envisaged by the Planning Commission since a number of plants are still in the planning stage and will come into production only during the last two years of the Plan (see paragraph 75). Furthermore, manufactured goods are to play an increasingly important part in the growth and diversification of exports; about three-fourths of the projected increase in export receipts during the Second Plan period is to come from such goods.

171. The benefits from the industrial plan are, of course, highly unpredictable inasmuch as the expansion of industry is mainly left to private initiative. The role of Government is essentially one of control through encouragement or restraint. Restraint is exercised through the granting of permission for the establishment of industries and the allocation of foreign exchange for the import of capital goods and supplies. Encouragement to private business is given in the form of various legal safeguards and tax concessions which are calculated to improve the investment climate in general. Public industrial investment, on the other hand, is a matter of direct Government action exercised through the PIDC as the chosen agency.

172. The Government has established an Industrial Investment Schedule for the private sector. If a project comes within the scope of the Schedule, the granting of permission for the establishment of industries is semi-automatic and independent of special applications. The schedule as it is now set up, covers investments up to a total of Rs. 2,844 million, the foreign exchange component of which is Rs. 1,695 million. Around 107 separate branches of industry are listed for each of which an investment ceiling is laid down within the above global total.

173. The availability of credit for industry is critical for the carrying out of this program. The most important institution in the country financing private industry is the Pakistan Industrial Credit and Investment Corporation (PICIC), which is an industrial development bank incorporated in 1957 with a paid-up capital of Rs. 20 million. Private investors from Pakistan contributed 60% of the capital; and industrial and financial interests from the U.S.A., U.K., Canada and Japan 40%. The Pakistan Government has given an interest-free loan of Rs. 30 million and the IBRD and the U.S. Development Loan Fund have together so far advanced US $28.4 million.

PICIC primarily serves privately-owned large- and medium-scale industries with loans above Rs. 500,000. By the end of June 1960, covering a period of about 30 months' operation, PICIC had undertaken commitments to finance 121 projects for a total amount of Rs. 112 million, and undoubtedly has made a very useful contribution to the development of industry in Pakistan and is expected to expand its operations substantially during the Second Plan period. The Pakistan Industrial Finance Corporation (PIFCO) plays a part, similar to that of PICIC in the field of small-scale industry. It has been granting loans of foreign exchange below Rs. 500,000.

174. The Pakistan Government has taken certain steps to encourage private industrial investment. Taxation on companies declaring dividends in Pakistan deriving income from industry has been reduced from 55% to 45% in the 1960/61 budget. Undertakings established between April 1959 and the end of the Second Plan are exempted from taxation for four years generally, and for six years in respect of new industries set up in East Pakistan and in such of the underdeveloped areas of West Pakistan as may be notified by the Government. Losses are allowed to be carried forward for six years. Special initial depreciation allowances, above the ordinary depreciation permitted for taxation purposes, are given at the rate of 25% on plant and machinery not previously used in Pakistan.

175. In order to attract foreign capital, the Government has offered certain concessions and safeguards to foreign private investment in industry. There are no restrictions on the remittance of profits, and on the repatriation of capital in approved industries established after September 1, 1954. Agreements for the avoidance of double taxation are in force with a number of countries. There is to be no restriction as to the degree of participation of Pakistani capital in any industry where foreign investment is approved by the Government. Foreign technicians employed by approved industrial undertakings, under contracts of service approved by the Central Government, have been exempted from tax on their salary-income in Pakistan for a period of 24 months.

176. A significant export incentive scheme has been in effect since 1959, that is the Export Bonus Scheme, which permits exporters to obtain from the Government a certain proportion of the foreign exchange proceeds of their sales for their own free use. The amounts obtained may be spent on the import of equipment or raw materials and spares. Apart from having been very successful as a stimulus to industrial exports, the system has given some valuable flexibility in the procurement of urgent or marginal supplies, as has the introduction of automatic licensing.

As the bonus vouchers are transferable, an active market has developed in them.(see paragraph 32)

177. Government direct investment in industry is channeled through the Pakistan Industrial Development Corporation, an organization established with the object of promoting industrial enterprises which private industrialists were unable or unwilling to undertake. Since 1952 the PIDC has taken the initiative in promoting industries requiring a heavy initial capital investment, or which took a long time to construct, or

which involved complicated processes requiring high technical knowledge. The finances for the projects undertaken by PIDC come from annual budgetary grants of the Central Government, such private capital as the Corporation is able to attract, foreign aid and loans and working capital obtained from Pakistani banks. The Government budgetary grant has averaged in the past about Rs. 150-200 million a year and constitutes the bulk of the PIDC's funds, a substantial part of which is in the form of foreign exchange. The total amount of foreign aid received by the PIDC up to the end of 1960 was about Rs. 140 million. Several large cement and fertilizer factories have been undertaken, a coal mine was mechanized and numerous sugar mills set up. Recently a D.D.T. plant and a penicillin factory was established. Much of the expansion in jute manufacturing was carried out by PIDC. Its role in the expansion of the manufacture of paper, newsprint and shipbuilding has been substantial. The activities of the PIDC have extended into many fields.

178. The total capital cost of completed PIDC projects was approximately Rs. 1,000 million at the beginning of 1961. The estimated capital costs of PIDC projects underway is Rs. 500 million of which the two fertilizer plants are the most important. Finally, the capital cost of schemes to be set up by the PIDC under the Second Plan amounts to a further Rs. 600 million with a foreign exchange component of about Rs. 400 million. Clearly, many industries set up by PIDC would not have been established if it were not in existence despite its tendency to be overly bureaucratic, somewhat inefficient and lacking in cost consciousness.

179. Although the Second Plan only started in July 1960, there is already sufficient evidence available to justify the conclusion that the industrial part will be overfulfilled, possibly by a substantial margin. This applies particularly to the Western Wing of the country. There is great eagerness on the part of industrialists to invest in expansion. The rupee capital is available, mainly in the shape of profits to be reinvested. According to the most recent information, investments totaling Rs. 800 million have already been sanctioned in the private sector and Rs. 190 million in the public sector. Quite a few of the illustrative targets listed in the investment schedule are already fully subscribed.

180. It must be recognized, of course, that surpassing the industrial plan targets may have its dangers. While it is true that industrial investment commitments will only be made if and when the internal and external finance has already been secured, an excessive rate of growth in industrial capacity will throw an increased strain on other sectors of the economy including the extra demands on home and foreign supplies. A higher than planned industrial growth rate would certainly result in an increase in the requirements of raw materials, fuel and spares.

181. The original industrial target appeared to the Mission to be reasonable both with respect to its relative size as against the other sectors of the economy as well as to its internal consistency. The enlarged target may present greater problems. The Mission does not have sufficient detail for further comment. Moreover, there may be a continuation of the

tendency which was dominant in the st to over stress industries which serve consumption. This was undoubtedly necessary in the past considering Pakistan's relatively early stage in industrial growth. The current plan does put some emphasis on such producer goods' industries as steel, electric machinery, and transport equipment which are necessary for attaining self-sustaining growth.

182. There are weaknesses especially at the executive level which may well delay the carrying out of some of the larger projects in the Plan. The lack of competent managers with the necessary training and experience is serious. Skilled personnel, especially at the foreman level is a real bottleneck. Government bureaucracy may tend to delay necessary works. The Investment Schedule itself may present some pitfalls in that sanctions for projects are likely to be given by reference to the ceilings given in that document at the risk of neglecting a proper investigation of the respective merits of the schemes in question. Not sufficient official regard is paid to the commercial and economic aspects of enterprises to be set up. There is a tendency to dole out the available licenses and foreign exchange on considerations of equitable distribution among as many as possible worthy applicants, with the result that too many small and uneconomic units are created.

183. The general buoyant atmosphere although a stimulant in the current business situation can in itself be dangerous. There is little caution at present in the entrepreneur's approach to investment. Proper preliminary market surveys are not made, and admittedly the necessary data are mostly lacking. It has been the experience that profits have been made even at levels of output well below the break-even point normal in other countries. So from the point of view of the entrepreneur there has been little deterrent to the setting up of capacities beyond the limits where their regular full employment is reasonably assured. There has been an understandable tendency to allow over-expansion to take place. Government is preoccupied with shortages and expansion. In its desire to defeat high prices and possible monopolistic practices it is prepared to countenance the creation of enterprises and capacities above what the market or the supply position will bear. In some cases, products have not even been properly adapted to the technical requirements of the market.

184. Capital being a scarce resource in Pa istan, the fullest possible use should be made of existing facilities. But the implications of this principle are perhaps not yet fully recognized in the country. Government licensing of industrial enterprises has, apart from the fibers and continuous process industries, usually been given on the basis of one-shift working, leading to more capital expenditure in relation to a given market or supply situation than would be needed on a two or three shift basis. The attitude of even the large industrialist is biased towards investing more capital in industry and creating greater production facilities than is justified by the feasible level of utilization. Insufficiency of supplies, mainly imported supplies, has been the direct cause of underutilization of capacity though the situation has recently much improved in this respect. But the supply shortage is by no means the only reason; markets have not been developed, often due to inferiority in quality or a price which is

substantially above that of foreign competition. Excess capacity exists both in consumer and producer goods industries, but the problem is more serious and deep-seated in the case of producer goods and, incidentally, of the construction industry.

185. If industry is ever to become more competitive it must receive an adequate flow of raw materials, semi-finished products and spare parts which alone can permit the proper adjustment of production facilities to demand. The supply position fortunately is now somewhat improved. After a lapse of nine years, in March 1961 11 import items were placed under what is called "Open General License". This permits the import without restriction of small quantities of such commodities as iron and steel, tools and workshop equipment, tractors, and pharmaceuticals. (see paragraph) . "Automatic licensing" applying to other goods, which was introduced some time ago, is being further developed. It provides for the automatic repeat licensing of imports on the presentation of documents proving the dispatch of the preceding shipment. These procedures have to a certain extent simplified and speeded up importing with the result that the import of raw materials, fuel and spares now run at the annual rate above Rs. 1,000 million.

186. Pakistan industry is young and in many instances needs Government support. The Government, however, has insisted on maintaining a large measure of competition with imported goods. The tariff structure has given only a limited amount of protection and, in some cases, even reverse protection. For instance, there are cases where imported semi-manufactures and components used by domestic industry bear much higher rates than the imports of the respective finished products. The capital goods industries receive little protection at basic tariff rates of 12½%. The underlying philosophy seems to be that development projects require imported equipment and should not be penalized by a high tariff. Industries making capital goods in the country must compete. Since Government agencies and public bodies such as WAPDA are the most important buyers of capital equipment, it has been charged that the Government does not attach sufficient significance to patronizing home industry. The Mission feels that some effort must be made to support investment goods which can be produced inside the country providing they are no more than 25% above the cost of comparable imports.

187. Industry has, to some extent, been hampered in the past by various Government controls. The Government is concerned with fair prices and equitable distribution in a situation where the gap between supply and demand is frequently too wide to be bridged. But the controls may have, in some cases, perpetuated the shortages whose consequences they are intended to ameliorate. While it is recognized that the controls themselves provide no remedy for the underlying ills, the authorities have been reluctant to give the market its head and to rely on the market mechanism to bring about an improvement in the basic supply situation. The controls have constituted a drag on industrial activity, and at the same time have been driving goods into the black market. It is the declared view of the Government that controls are not desirable in principle and only imposed as emergency measure. In February 1961, the Government took a step forward by

decontrolling about 30 items including cotton, iron and steel, cement and non-ferrous materials. The Minister for Industries said that the Government had adopted the policy of decontrol because they considered that it would give an incentive to production. The list of goods still price-controled includes indigenous coal, cars, trucks and tractors, bicycles, sewing machines, soda ash and tea.

188. It is bound to take time for industrial attitudes, skills and traditions to grow up in a newly developing country. The general level of industrial efficiency in Pakistan is not high by mature standards. Progress is, however, being made and the attainment of adequate levels of productivity is within the reach of some industries. A most pressing problem is the development of proper management techniques. The present generation of industrial leaders inevitably lacks the background and training which can only come with long-established industrialization. Thus, such subjects as the layout of production, good maintenance practices and proper costing are often imperfectly appreciated and understood. Skilled personnel, foremen, and experienced maintenance men are becoming a bottleneck in some instances to rapid industrial development.

189. Industries employing advanced machinery and processes usually must rely on foreign key personnel to train foremen and to supervise production. This is a necessary practice which will probably continue for some time to come. Training for key jobs is a time-consuming process that can only be obtained with years of experience. Valuable experience can be received in the industrial countries where the respective techniques or equipment originate and some Pakistani engineers, undoubtedly, should be sent abroad for training. Furthermore, upon their return these men should be put in jobs which correspond to the technical training which they have received abroad. Nevertheless, there is no substitute for on-the job experience. The shortage of skilled personnel at the lower management, foreman and maintenance foreman is perhaps the most difficult problem facing industrialization in Pakistan today. Training abroad is hardly feasible for these kinds of skill, at least not in large numbers. It would be well to bear this problem in mind when considering the establishment in Pakistan of industries and processes which depend for their successful operation on highly skilled operatives on the shop floor. There is no serious difficulty as regards the unskilled or semi-skilled industrial workers. Experience has shown that the Pakistani worker has high manual skill and can be trained to perform his tasks efficiently. Traditional small-scale industries in various parts of the country show that the Pakistani craftsman has great innate technical ability. It is quite impressive to see in places like Lahore and Gujranwala what he can achieve with the limited means at his disposal.

190. The annex on industry discusses in some detail the cotton, jute, cement, sugar, and steel industries as well as the small industrial sector. It is there concluded that progress in the execution of the textile plan is satisfactory. Existing cotton textile machinery is generally in good condition. Sufficient labor is now available and the number of trained workers is increasing at a rate large enough for the expansion program.

191. The Government, through PIDC, has been responsible for setting up the whole of the jute manufacturing industry. At the beginning of the Second Plan there were 13 mills with about 8,000 looms. Considerable amount of private capital has come forward, so that PIDC has been able to divest itself of a large part of its holdings. The Plan proposes the addition of 4,000 looms to the present stock of 8,000 at a cost of Rs. 260 million, with PIDC taking the initiative in this expansion up to a limit of Rs. 100 million. The principal motivation for this enlargement of capacity is to expand the export of manufactured jute goods. However, the Mission is of the opinion that unless the Pakistan jute industry can compete successfully with the strong and experienced Indian jute industry, the projected increase in the export of jute manufactures of Pakistan may be over-optimistic.

192. The sugar industry is in an unsatisfactory state and it is concluded in the industrial annex that a policy of basic reform should be initiated. The Mission does not believe that the investment of large sums in sugar refining is justified while so many problems of sugarcane growing and distribution await solution. The development of the industry in the past has involved large amounts of public investment. Under the Second Plan private investment is expected to take the initiative in establishing three mills in West Pakistan while the PIDC would set up four mills in East Pakistan. The Mission would hope that public investment would proceed with caution.

193. Pakistan has no primary steel plant at present and is entirely dependent on imports which are now probably in the region of 500,000 tons a year (East Pakistan about 100,000 tons) costing Rs. 350 million in foreign exchange. Unfortunately the raw material base for steel industry is not very satisfactory and it is therefore contemplated that the first steel developments would be based on imported scrap and pig iron. A policy decision has been taken to have one plant near Karachi and another smaller one near Chittagong in East Pakistan. Sui Gas would be used in West Pakistan, although approximately 40% of the total fuel would have to be fuel oil. For Karachi three 100-ton furnaces are proposed and for Chittagong three 40-ton furnaces, giving annual ingot capacities of 250,000 tons and 100,000 tons respectively. The investment cost (excluding customs duties) is estimated by the consultants to the Government at Rs. 180.5 million and Rs. 105 million respectively, the foreign exchange component being about two-thirds of the total. The Mission had the opportunity of studying consultants' reports on these proposals and, after taking into account some factors which these reports appeared to minimize or overlook, formed the opinion that prices of domestically made steel products would probably be above those of imported products, perhaps by a large margin. On the other hand, the Mission does not feel confident that the case for a steel plant or plants can be justified on the one hand or ruled out on the other simply on the basis of projected cost analysis. If Pakistan is to industrialize quickly, more experience in metals is badly needed and a small steel industry could provide a base for such training.

TRANSPORT AND COMMUNICATIONS

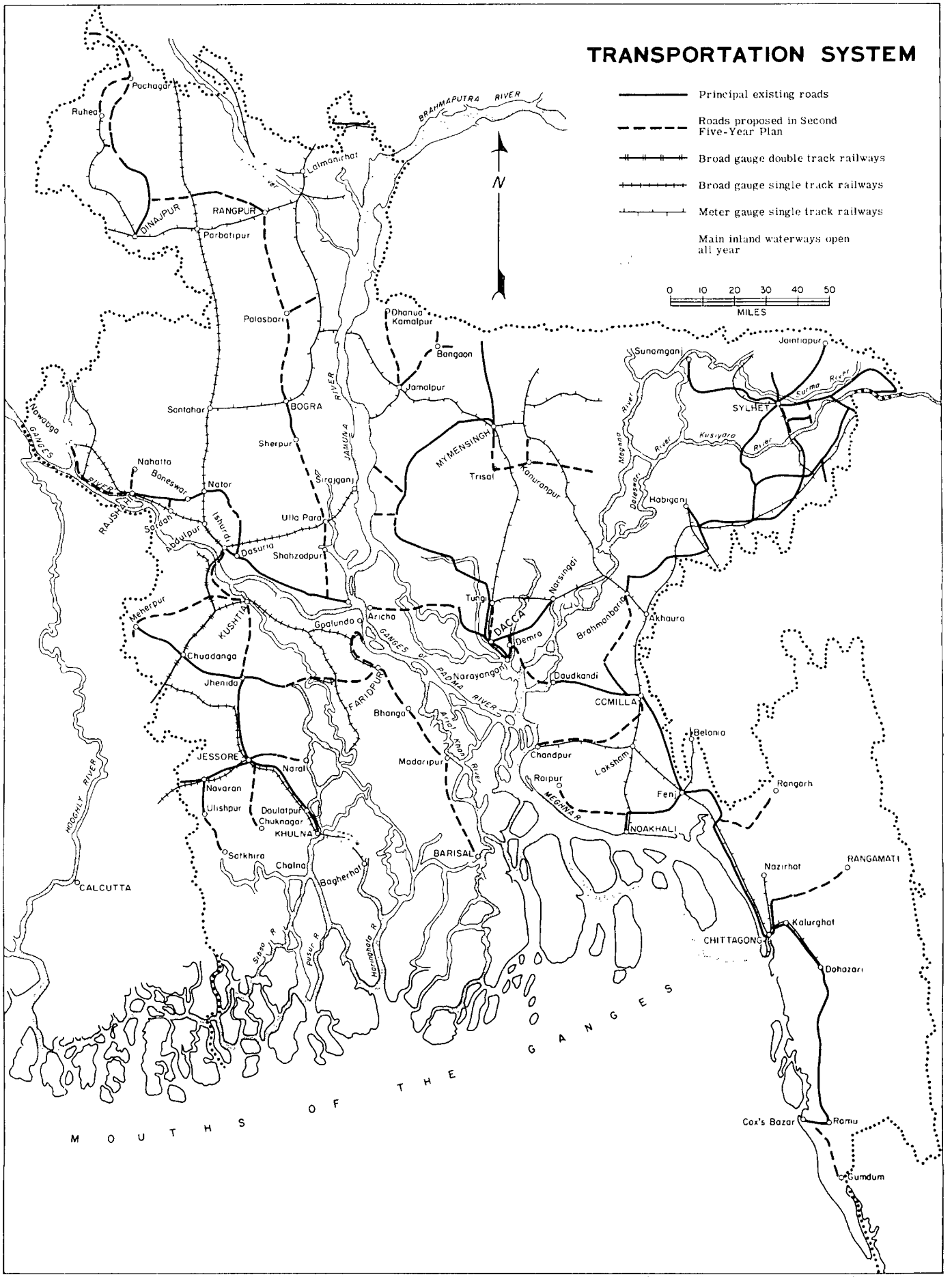
194. The problems of transport and communications differ greatly between East and West Pakistan. Although both provinces have well-developed rail systems to handle the essential long-distance bulk traffic required to maintain economic activity, West Pakistan has a substantial amount of road traffic, both by motor vehicles and by bullock carts, whereas in East Pakistan most feeder traffic is carried on inland waterways.

195. Both parts of the country, at Partition, inherited transport systems that were run-down and poorly maintained. Only 16% of the total railway mileage and 10% of the surfaced roads in the sub-continent were incorporated into Pakistan. The railroads, having been over-used and poorly maintained throughout World War II consisted of track and rolling stock that was for the most part in very bad shape. The highways in West Pakistan also required extensive repair and improvement, and those in East Pakistan were hardly developed. The inland waterways of East Pakistan were rapidly silting up and during the dry season navigable mileage was substantially below what it had been before the Second War. In addition to the condition of the transport facilities, Partition caused further disruption. In both provinces, the transport systems had to be reoriented. In the west, Karachi with its inadequate port facilities became the new focal point of the system. In the east, Dacca and Chittagong became the central points for transport, with Calcutta no longer an integral part of the country's economy. Port facilities in the east were almost non-existent.

196. For commercial purposes the two provinces were hardly in contact with each other after Partition. The development of coastal shipping and civil aviation became vital. The country had practically no merchant fleet. No airline was based in Pakistan and there was only one major airport, the one at Karachi. Modern trunk telephone exchanges had to be opened at such important cities as Dacca, Rawalpindi, Chittagong, Lyallpur, and Quetta. Total assets in telecommunications amounted only to Rs. 36 million at Partition. At that time, a national radio station did not exist. Radio Pakistan was started with medium-wave stations at Lahore, Peshawar and Dacca with an output of only 20 kilowatts. The Karachi station was not started until 1948.

197. During the first years after Partition, the rehabilitation and reorientation of the transport network plus establishing the simplest type of communication absorbed all the resources available to this sector. The backlog of maintenance and replacement was so large that real progress towards enlarging facilities to meet the needs of economic growth inevitably had to be slow. The First Plan allocated some Rs. 1,422 million to transport and Rs. 244 million for communications in the public sector, which was sufficient to permit a substantial amount of rehabilitation but not to eliminate the shortage of transport capacity. Actual expenditures were somewhat less during this period amounting to some Rs. 1,450 million for all of transport and communications in the public sector.

EAST PAKISTAN



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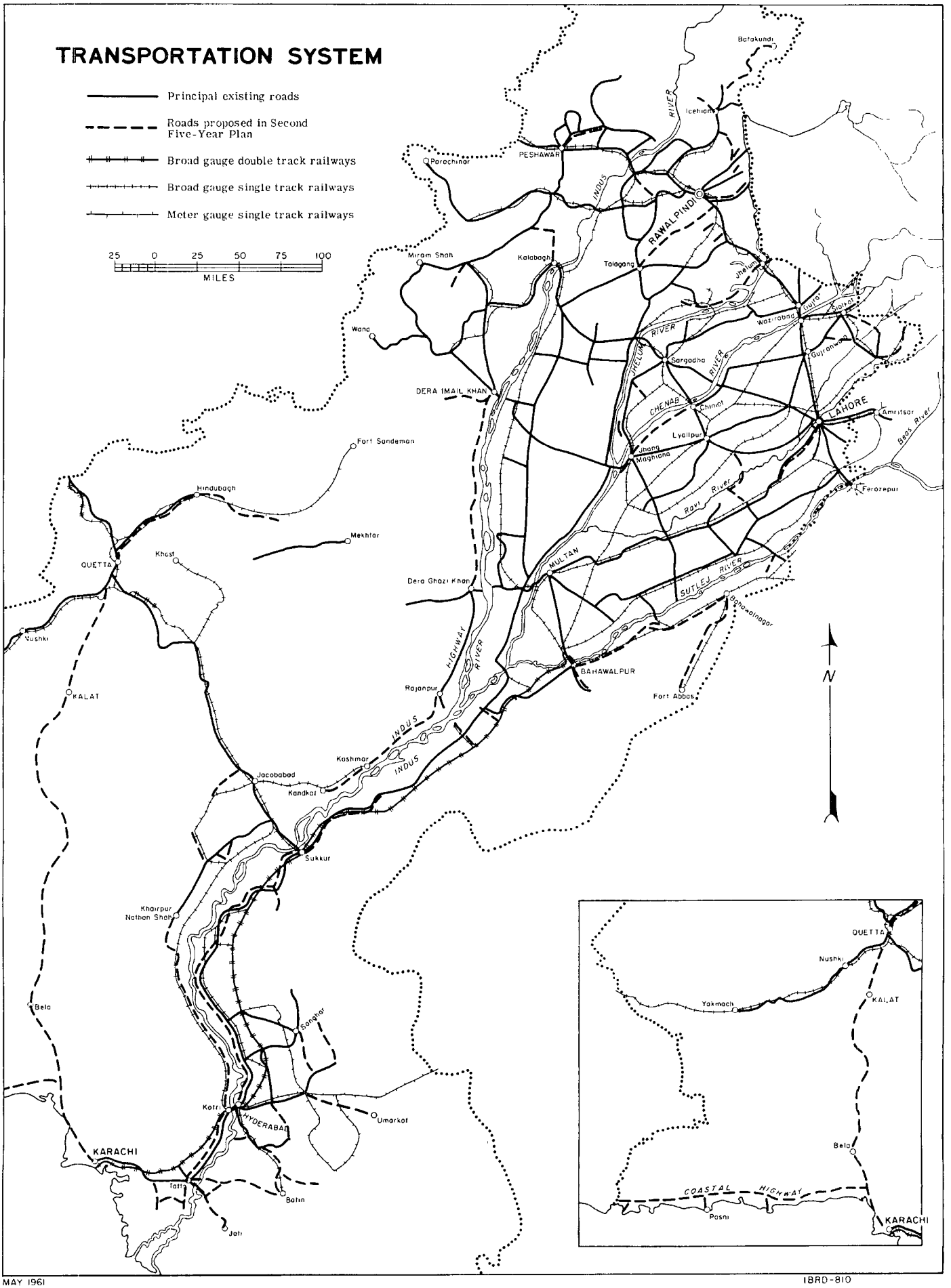
WEST PAKISTAN



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198. Long-term planning for the development of an integrated transport and telecommunications system has been sadly neglected. Only in recent months have comprehensive surveys been initiated. It is envisaged that it will be at least a year before complete transport surveys are available for both East and West Pakistan. In the meantime, most of the allocations in the Second Plan for the transport sector are considered by the Government as tentative although, for the most part, they probably represent high priority work.

199. The Mission believes that, in general, the need for improving the transport and telecommunications systems is great. A large part of the proposed program is undoubtedly sound, although in some cases, for example road development in East Pakistan, the allocation may be too high whereas in others, such as inland water transport, it may be too low. The growth in capacity has clearly not kept pace with the demand for service and the Planning Authorities expect that the situation will be little better by 1964/65. The level of transport has been extremely low in Pakistan even relative to its national income.

200. In general transport and telecommunications facilities are in a much more satisfactory condition now than at any time since Partition despite the existence of substantial shortages of capacity. Congestion which has prevailed throughout the country during the last decade is now less severe. However, since long-term planning for development of transport and telecommunications has been so neglected, the question of determining priorities is most difficult and all observations in this report must be considered tentative.

201. The Second Plan originally allocated Rs. 3,240 million for transport and telecommunications including Rs. 960 million for railroads, Rs. 1,185 million for roads and road transport, Rs. 661 million for civil aviation and telecommunications and Rs. 434 million for ports, shipping and inland water transport. Some upward adjustments have been introduced since the Mission was in Pakistan and further reports indicate that specific allocations may continue to change considerably during the next year or so.

202. The railroads have indicated that to meet the transport requirements of the Second Plan plus the Indus Settlement Plan will cost some Rs. 700 million beyond the Rs. 960 million included in the Second Plan. The Planning Commission now intends to increase railroad's allocation by Rs. 440 million. The Commission also has allocated an additional Rs. 147 million for civil aviation and telecommunications and Rs. 113 million for roads and inland water transport. Details concerning these increases are not yet available. In any case, the Second Plan's allocation for transportation and telecommunications is now at least Rs. 3,940 million.

203. The Mission is not convinced that the increase in the sector's allocation indicated above is fully justified. The Mission is of the opinion that a reevaluation of the comparative priorities within the sector might result in different allocations within the resource limitation that exists. The Mission is satisfied that, in general, the plans for improving the railroads are sound. The programs for roads and inland waterways may have to be revised.

204. Railroad progress has been encouraging during the last few years. Goods moved in ton-miles during the First Plan period have increased by 38%. Although there are still problems of congestion, the traffic situation confronting the railroads in West Pakistan has become somewhat easier in recent months as the result of the acquisition of a large number of wagons and some additional motive power. Cargo movement out of Karachi Port continues to be a potential bottleneck. In East Pakistan the growth in rail traffic has been very rapid but not without causing congestion. The railroads expect that work now under construction should permit the demand to be met without congestion during most of the Second Plan period.

205. The Mission believes that it will be a substantial achievement if the railroads are able to eliminate congestion and also handle the especially large increase expected in bulk cargo. During the coming year, imports of food grains may double. An agreement on increased imports of U.S.-aided agricultural commodities is now being reached. Preliminary estimates indicate that in a few years, as the result of the Indus project, annual traffic will increase by more than two million tons. The Mission strongly believes that the ability of the railroads to meet the requirements of the next few years should be kept under constant review.

206. There are already indications that railroad traffic is growing somewhat faster than had been expected. The Mission, therefore, feels that it would be better to err on the conservative side and agrees that, with the exception of a few new lines, the proposed program, as approved by the Planning Commission, is necessary to enable the railroads to move the traffic now forecast for the Second Plan period. The alternative means of transport are too limited. Road transport, even in West Pakistan, is at too early a stage to assume any substantial part of the transport burden carried by the railroads. In East Pakistan, inland waterway improvements will require many years.

207. The road program is very large and probably justified only in West Pakistan. Most of the main urban centers are already connected by paved roads. Although these roads now provide a fairly reliable means of communication, they are probably not adequate for future traffic volumes and will need some improvement. The secondary road system appears to be generally adequate except in certain developing agricultural areas. In East Pakistan, none of the main centers are now connected even at the present rate of construction it will take five years before any through roads are completed. Since the construction of highways in East Pakistan is costly, with a large number of bridges required, the approach to road programs will, of necessity, have to be cautious.

208. The Mission believes that a reassessment of priorities is necessary in the entire road program. At the level where projects are originated, there is little or no coordination between the planning of individual roads and the related planning in such fields as agriculture and industry. Planning work is done without sufficient economic and traffic data. The Mission feels that no projects for new road construction should be approved until the recommendations of the transport surveys are available.

209. The Plan provides for an increase in the number of commercial vehicles at the rate of some 4,000 per year, which will do little more than modernize the existing fleet and result in a modest expansion. The Mission believes that the need for vehicles probably is larger than the estimates set forth in the Plan. The Mission considers that an increasing share of traffic will be moved by road rather than rail in West Pakistan, although, in terms of total volume it may remain relatively small.

210. The Mission is of the opinion that inland water facilities will have to be expanded even more than is presently planned. It is especially important as the only means of transportation in many parts of East Pakistan. The amount of goods transported by inland water probably exceeds that carried by all other forms of transport in that province. The work of improving and developing inland water facilities now appears to be gaining momentum after a very disappointing start. The Second Plan envisages a somewhat more ambitious program than the First Plan but even that seems modest considering the long-term importance of this form of transport. The Mission recognizes that the new Inland Water Transport Authority must plan its work realistically, but feels that it is imperative for the future economic development of East Pakistan that the role of IWT must be improved and enlarged as quickly as possible. The cost of transporting goods by inland water must be reduced relative to railroads. The existing IWT fleet needs rehabilitation and modernization. Extensive dredging will ultimately have to be carried out but river surveys must first be undertaken. Inland river port development is vital, but substantial engineering still has to be effected. The Mission recognizes the difficulties but hopes that work will continue to be given a high priority in the Government's program.

211. The Mission was encouraged by the condition of the sea-going ports of Pakistan. The ports have been recently expanded and are all in reasonably good condition to handle the traffic being offered. Much of the congestion and delay has been eliminated for the time being. Expansion programs are well-advanced. The greatest concern to the Mission was the problem of continued congestion on the railroad between Chittagong and its hinterland and whether Karachi port and the railroad leading to the port will be able to meet both the needs of the Plan and the additional cargo which will result from the Indus project and the U.S.-aided agricultural program. The Mission has doubts whether the port can avoid congestion and suggests that additional study be given this problem.

212. The allocation in the Plan for coastal shipping seems to the Mission to be highly desirable. The Mission is of the opinion, however, that the program should be carefully reconsidered so that smaller cargo vessels of about 1,500 tons carrying capacity with a maximum draft of 12 feet might be obtained for use in the trade between Dacca and Karachi. The programs for civil aviation and telecommunications do not present any unusual problems. In both instances, the needs are great and the service limited. The allocations may be modest in view of the magnitude of the requirements but not in relation to available resources.

The Railroads

213. In both East and West Pakistan, the railways will have to remain the backbone of the transport system, carrying a sizeable share of the traffic, in ton-miles as well as in passenger-miles. Freight traffic in 1959/60 reached 4,557 million ton-miles. Traffic carried has been growing rapidly in recent years but the railroads have not been able to keep pace with demand. The situation in West Pakistan has become somewhat easier in recent months, the railways having acquired a large number of wagons and some additional motive power during the last year of the Plan. However, traffic demand still exceeded carrying capacity on some lines during the latest busy season. In East Pakistan the very steep increase in rail traffic has continued to result in shortages in both line and yard capacity. Work now underway is expected to eliminate the bottlenecks and permit the railroads to meet overall traffic demands. The Mission is satisfied that, in general, these plans and the works now being undertaken by the railroad are sound.

214. The current capacity shortage exists despite the large expenditures carried out by the railroads in recent years. The railway's First Five-Year Plan allocation amounted to Rs. 683 million. Actual expenditures up to June 30, 1960, are estimated to have been Rs. 804.6 million including foreign exchange of Rs. 527.6 million (US $111 million). These expenditures have resulted in improved traffic conditions despite the continued existence of delays, bottlenecks and breakdowns. Since the middle of 1960, for the first time in several years, the West Pakistan railroad was able to move, on most of its lines, practically all traffic offered. This was mainly due to the fact that this railway had acquired about 4,000 new wagons and some additional motive power during the last 15 months of the Plan period. The true test, however, is during the busy season of December through May and from recent reports it is clear that traffic still tends to exceed carrying capacity around port areas, in particular, when bunching of bulk cargo carrying vessels occurs. In both East and West Pakistan, shortage of food grain storage has tied down large numbers of grain-loaded wagons for weeks until storage space has become available. If congestion is to be avoided in the future, some effort will have to be initiated to coordinate better the arrival of grain shipments. The Mission would hope that shipments of U.S.-aided agricultural commodities could be evenly spaced over the year.

215. The main traffic bottlenecks are attributable to the inadequacy of sectional and terminal capacities, outmoded signalling equipment and in East Pakistan to the shortage of wagons. A main obstacle to the smooth flow of traffic to and from Karachi is expected to be removed by the middle of 1961 when the Central Traffic Control of the Karachi-Landhi (18 miles) section becomes operational and the expanded Karachi City Yard completed. Construction of the Karachi Circular Railway will also relieve congestion in Karachi. In East Pakistan, the traffic situation is expected to improve substantially with the installation of new signalling equipment and the completion of a new yard at Dacca.

216. The operational improvements already achieved have been substantial. In both East and West Pakistan, the trains are heavier, faster and more efficient than they were five years ago, although the performance in West Pakistan has been somewhat ahead of that in East Pakistan. In general, the Mission believes that progress in the various operational fields has kept pace with the acquisition of new equipment and is satisfactory. The increase in passenger and goods traffic over the First Plan period has been substantial. In East Pakistan freight carried increased at such a rapid rate that it regained much of the ground lost as the result of the disruptions due to Partition.

217. The recent indications are for an especially large growth in traffic during the first years of the Second Plan period. Traffic in ton-miles of freight carried during the first five months of 1960/61 in West Pakistan increased at an unprecedented rate of 22.9% over the comparable period of the preceeding year. The railroads forecast that average freight carried in ton-miles will increase at a rate of 7.4% per annum over the Plan period in West Pakistan and 7.2% in East Pakistan.

218. Growth at this rate in West Pakistan would mean that some 5,070,000 tons additional freight would have to be carried by the railroads during the last year of the Second Plan as compared to 1958/59. The full effect of the Indus project plus the additional grain import programs will probably add somewhat over two million tons per year to the above figures. In other words, an additional seven million tons will have to be carried by the railroads. A considerable amount of material needed for the Indus project will either be very bulky or difficult to handle, such as machinery, steel, bitumen, oils, coal, cement, sand, gravel, stone and wood. West Pakistan WAPDA has estimated that during the year of heaviest Indus traffic 1964/65, the project itself would require commodities weighing 2,200,000 tons. Furthermore, some 1,250,000 tons will have to be moved in 1962/63 and 1,600,000 tons in 1963/64. The railroads have included in their plans sufficient additional diesel locomotives, wagons and other equipment to meet the needs of this traffic. The Mission is encouraged that the railway is making a careful analysis of Indus traffic demands in the coming years, and is hopeful of the railroad's ability to meet these demands.

219. The growth in traffic in East Pakistan during the Second Plan period is expected by the railroads to result in an annual increase in traffic of 2,270,000 tons including 900,000 additional tons of such agricultural commodities as grains, jute, sugar, fruits and vegetables, as well as nearly 550,800 tons of coal, coke, peat and petroleum products. The railroad's plans if carried out effectively should be adequate to handle this additional traffic.

220. The railroad's acquisition of equipment to date has been quite satisfactory. Rolling stock put on line during the First Plan period included 144 diesel locomotives, 24 diesel railcars and 24 trailers, 645 passenger carriages, and 9,158 wagons. Domestic equipment production has been expanding. The Pakistan Western Railway has developed capacity to manufacture 1,000 wagons per annum which it is expected will substantially reduce the foreign exchange component of the program. Assembly and welding of carriages, body shells and interior furnishing of the carriages has been undertaken on both railways. Diesel locomotive repair shops have been constructed at Karachi and Chittagong and a workshop in Lahore for servicing and maintenance of diesel locomotives is under construction. The West Pakistan diesel fleet at the end of the First Plan consisted of 176 diesel locomotives and 24 diesel railcars; the East Pakistan Railway had 51 diesel locomotives. Track renewals carried out during the Plan period amounted to 808 miles with 1,200 miles of sleeper renewals.

221. The railway program although originally estimated in the Second Plan to cost Rs. 960 million has now been revised upward by the railways to cost Rs. 1,167 million. A further Rs. 97 million has been added for requirements arising from traffic generated by the Indus project, and Rs. 359 million as the result of the carry-over from the First Five-Year Program, resulting in a total program totalling Rs. 1,623 million. The foreign exchange component would be Rs. 1,024 million (US $215 million equivalent) of which some 30% is already covered by existing loans and aid. The Mission feels that with the exception of relatively low priority new line construction costing approximately Rs. 100 million, most of the railways' program must be carried out if the expected traffic is to be moved during the Second Plan period.

222. The proposed Second Plan program includes Rs. 837 million to cover the cost of 223 locomotives, 915 passenger coaches and 14,763 wagons. This program would permit the replacement of a large amount of equipment that is now over-age. However, the program is modest compared to needs and by the end of the Plan period a large amount of stock over 45 years of age will still have to remain in service.

223. The program also includes some Rs. 230 million to cover the renewal of 3,811 miles of track. Normal renewal of track fell into heavy arrears after 1940 because of the war and subsequent difficulties during Partition. Moreover, the scarcity of foreign currency needed for rails and sleepers made it impossible to eliminate the backlog that continued throughout recent years. During the Second Plan period, renewals of 475 miles of rails and 1,299 miles of sleepers will become due, in addition to the backlog that already exists. The track renewals program of the Second Plan aims at clearing only the renewals which had accumulated up to the beginning of the Second Plan period.

224. With the exception of the new line construction, the railways' program includes only high priority works and equipment. The program will, of course, have to be kept flexible and adjusted to traffic trends as they develop. The demands on the Pakistan Western Railways carrying capacity likely to arise from execution of the Indus Basin Development project can probably be met if the railways' program of additional motive power, goods wagons and signalling equipment is carried out. Administering the railroad program should create no difficulty as the railways are well-managed and operation is reasonably efficient. Although there is a shortage of civil and mechanical engineers and also supervisors in the various fields of the railway service, training programs now underway are expected to supply additional personnel by the end of 1962.

The Program for Roads and Road Transport

225. Proposed expenditures in the Second Plan for roads and road transport amount to Rs. 1,180 million or approximately 35% of the total allocation for transport and telecommunications. Some of these expenditures are probably of relatively low priority, which should become quite apparent upon the completion of the transport surveys which are now being carried out.

226. In West Pakistan most of the main centers are already connected by paved roads. The more important of these may have to be provided with double-lanes in the course of the Second Plan period as traffic volumes increase. The secondary road system, a portion of which is also paved, appears to be generally adequate at the present time, except in certain areas where a concentrated effort is being made to increase agricultural production.

227. In East Pakistan, none of the main centers are connected as yet although it is estimated that since 1950 over Rs. 200 million has been spent on road construction. Work was scattered over many projects throughout the province. The road system now consists of a large number of unconnected stretches of roads and isolated bridges. At the present rate of construction it will still take five years or more before any through roads are completed.

228. Most of the population of Pakistan live in villages which are accessible only by fair-weather earth roads which are impassable each year during the rainy season. Detailed information regarding plans for improving village roads is not available as their construction and maintenance has largely been left to the villages themselves. In East Pakistan these village roads, for the most part, feed into inland water routes. Improvement will of necessity be slow and costly. In West Pakistan, the rainy season is short-lived and the state of village roads is not a substantial barrier to the movement of agricultural output.

229. Road works are the responsibility of the Buildings and Roads Divisions of the Public Works Departments (PWD) of each Provincial Government and the Central Government. Projects usually originate and are carried out at the district level where the design, specifications, estimates and tender documents are prepared. The rest of the PWD hierarchy devotes itself to reviewing these documents rather than planning the road system, establishing design standards, assuring adequate inspection and expediting progress. The PWD in West Pakistan has acquired a degree of competence in construction work, but in East Pakistan where road building is much more difficult, the PWD will need additional experienced staff if it is to carry out effectively new road works.

230. The Mission found little evidence in either province of any overall planning in improving highways or in relating the location of new highways to the existing railway and inland waterway facilities. The selection and location of roads has apparently in the past been often determined by political influence rather than by economic needs. In West Pakistan surveys of the road system and origin and destination studies are available, yet they do not appear to be used in planning new work. In East Pakistan, little technical information on the road system is available. Traffic data has not been prepared. For example, the design of vehicle ferries required over the many major river crossings has not been related to anticipated traffic. Design standards in Pakistan are not normally based on an appraisal of the importance of the road in the overall highway system or upon anticipated traffic. Roads are normally designed for seven-ton axle loading and restricted vehicle lengths and are thus unsatisfactory especially for heavy type vehicles.

231. With few exceptions, roads in Pakistan are built almost entirely with hand labor, equipment being limited to essentials such as rollers, concrete mixers and trucks. The labor force is hard-working and accomplishes in many cases remarkable feats of construction. Field inspection although satisfactory on a few projects in West Pakistan is normally inadequate or non-existent. The techniques of scheduling, progress reporting and follow-up are generally not in use. It has not been possible, for instance, to obtain information as to the progress of road construction under the Plan for the six-month period ending December 1960.

232. The cost of construction of roads varies widely, ranging from Rs. 100,000 per mile in West Pakistan for a single-lane asphalt surfaced road on a low embankment to over Rs. 400,000 per mile in East Pakistan for a single-lane concrete paved road on a high embankment with frequent culverts and bridging. An undesirable tendency has developed in West Pakistan to use Rs. 100,000 per mile as a rule of thumb average and to expect roads to be built for about that price without any consideration being given to the variable nature of materials and drainage. As a result, engineers are sometimes obliged to perform inferior work in order to complete the mileage, knowing that the work will not stand up or work has had to be stopped from time to time until more funds are appropriated.

233. The more important roads in Pakistan are fairly well-maintained considering that only hand labor is used. A separate maintenance organization does not exist but labor is permanently assigned to each section of road and work is carried out on a regular basis.

234. In West Pakistan the use of equipment in some instances is poor. It is not efficiently operated as the engineers in charge have had little experience with equipment. Routine servicing on the equipment is being carried out but repair facilities are very limited. In East Pakistan, a large quantity of road building equipment was purchased some years ago, but it would appear that very little of it is now in use. Some units require major overhaul and others only minor repairs but proper repair facilities are not available.

The Second Plan for Roads

235. The Plan provides for the completion, construction and improvement of a total of 5,240 miles of roads and a number of major bridges at an estimated cost of Rs. 545 million. In addition, 1,000 miles of village roads are to be built under the direction of the Agricultural Departments at a cost of Rs. 25 million. The total amount allocated for road construction is over 50% larger than in the First Five-Year Plan.

236. The Mission feels that insufficient consideration has been given to the criteria for determining which roads are to be continued and which new road to be started. There is some doubt if the process for reviewing roads is rigorous enough. Over one-third of the total road mileage in the Plan consists of on-going projects, i.e. roads on which construction has already started. In West Pakistan, the on-going projects included in the Plan are estimated to cost Rs. 92 million. Many of these are relatively short and almost completed. There probably is a prima facie case that they should be completed as soon as possible. On some of the projects, however, notably the Indus Highway, the Karachi-Lahore road and the Karachi-Quetta road, large sums are still required for completion. Judging from some of the work already completed, it is doubtful whether the standards being used will be adequate for the rapidly increasing traffic.

237. According to the Plan, new projects in West Pakistan form about two-thirds of the road mileage to be built or improved. Included in this category is the Coastal Highway and a number of roads to serve areas where irrigation works are now underway as well as a large number of secondary roads in the northern part of the province. The Mission is in no position to judge the economic merits of these various roads but believes that some of them could be delayed without seriously impeding the economic growth of the country. In East Pakistan, five trunk routes totalling 740 miles have been selected for completion under the Plan. They are considered national highways as they would connect the major population and administrative centers,

but in actual practice they would merely supplement existing railway and waterway facilities. Highway construction in East Pakistan is so costly because of the much wider embankment and bridges required that railways and waterways would inevitably have large cost advantages not only for bulk cargo but also for general cargo. Existing transport services probably should be improved or expanded before a highway system is constructed which would largely duplicate services already available. Rather than proceeding on five cross-country routes at the same time, the Mission feels it would have been more reasonable to select one road for early completion. A basis would then be available on which to determine with a greater degree of reliability the feasibility of constructing roads to compete against rail and water communications.

The Road Transport Industry

238. There has been a considerable increase in the number of motor vehicles in the country, from 47,000 in 1955 to 75,000 in 1959. The rise in the number of private motor cars has been more substantial than the increase in commercial vehicles, with the latter only rising from 20,000 trucks and buses in 1955 to 25,000 in 1960. The condition of the vehicle fleet, especially in East Pakistan, is poor. The average age of vehicles in West Pakistan is at least five years, while in East Pakistan most of the vehicles are wartime or early postwar models. The program for the Second Plan period will, to a large extent, result in the modernization rather than the expansion of the existing fleet of vehicles, with 8,300 vehicles or about one-third of the existing fleet scheduled for retirement between 1960 and 1965. The net addition to the commercial fleet is expected to be only 11,000 vehicles.

239. The amount carried by the present fleet is a relatively insignificant part of the total number of ton-miles of freight carried annually in Pakistan. Its most important role is to carry certain manufactured goods between the larger cities of the country plus a substantial amount of urban passenger traffic. Traffic densities on main roads now run to several hundred buses and trucks per day. Both city and inter-urban buses are usually crowded and trucks fully loaded. Passengers seem to prefer buses to the railway because of the more frequent and direct service. Manufacturers of high-priced goods being moved over such long distances as from Lahore to Karachi indicate a preference for shipping by truck because of faster delivery and less likelihood of damage.

240. Motorized road transport is still of minor significance for carrying short haul agricultural produce especially in the rural areas. This type of cargo is generally carried on bullock carts or by pack animals in West Pakistan and by country craft in East Pakistan. These more primitive types provide a relatively cheap form of transport. However, the large number of carts and pack animals in West Pakistan are greatly restricting traffic movement on the main roads. If a modern highway system is to be established in that province, the more primitive forms of transport will have to be restricted to secondary roads.

241. The general position of road regulation will undoubtedly have to be reexamined. The dimension and loading of commercial vehicles are, in effect, limited by the Motor Vehicle Act of 1939, to the use of vehicles built on a standard two-axle chassis. Severe restrictions on the loading of such vehicles is necessary because of the large mileage of single-lane pavement and the generally light design of surface and base. There seems to be substantial pressure towards the use of heavier equipment, especially in West Pakistan. The Motor Vehicle Act also regulates the operations of vehicles. All vehicles must be registered and in the case of those used for public transport, examined for mechanical fitness. Public carriers are required to take out a route permit for each vehicle. Buses are restricted to assigned routes, although competition is permitted on some city and inter-urban routes.

242. Road transport is for the most part operated and financed by small private entrepreneurs. The major exception is the passenger bus services which are operated by large Government-sponsored agencies such as the Karachi Transport Corporation and the West Pakistan Transport Board. Only a few organizations have fleets as large as 50 to 80 vehicles. Expansion and modernization of existing fleets has been severely handicapped to date by import restrictions and the fear that the Government may further nationalize the industry. The Government-sponsored agencies are providing a mass transportation service within large cities which is beyond the capacity of private operators. On the other hand, private operators with older bus equipment have been providing inter-urban service often at a cheaper rate than the larger agencies. A large-scale expansion of these governmental organizations would require large amounts of public funds which are badly needed for other programs. Private funds would probably be forthcoming for these purposes. The Mission believes that it is sound policy for the Government to assure private operators that they will be permitted to participate in common carrier transport commensurate with their ability to provide satisfactory service.

243. Consolidation of the private operators into larger companies or associations has been widely discussed in Pakistan and may prove to be economically sound. It has been claimed that the private operators are too small to furnish a satisfactory service, that they experience difficulty in obtaining credit for expansion and that they cannot afford adequate repair facilities. The Mission was impressed that some of the fleet operators apparently could expand, provided that the problem of obtaining vehicles and parts was eased. The Mission also feels that once the future of the industry is clarified, the private operators will probably take the initiative to organize and supply adequate regional service.

244. Road transport rates at the present time in Pakistan do not seem to be an impediment to the growth of road use. The average charge for trucking is not substantially different from comparable charge in the U.S. for example. Motorized road transport when serving the requirements for high-speed, high-value cargo should be able to compete with railroads in Pakistan. The quantity of this type of cargo available in Pakistan should become clearer as a result of the traffic surveys now being carried out.

245. The Second Plan provides for a doubling of the rate of acquisition of road vehicles which took place under the First Plan with the number of commercial vehicles to be increased by around 4,000 per year. The overall investment projected for these vehicles in the Plan is estimated at Rs. 640 million or the cost of 19,300 vehicles (8,300 replacements and 11,000 additional units), plus the necessary garages, workshops, and other premises. The private sector would assume the major responsibility for this investment, although the Government-sponsored agencies are expected to continue to play a significant part in the expansion of passenger transport in densely populated areas. Both are considered by the Mission to be competent to execute their respective programs, provided that they are given the opportunity to do so, for example, by a relaxation of import restrictions on vehicles.

246. The Mission feels that it is possible that the size of the program may prove to be too small. This should present no difficulty as the delivery time of vehicles is relatively short and the supply can be easily regulated. It is not difficult to increase the size of the program if more capital is available. The private sector is expected to finance over 80% of the estimated requirements for vehicles. It is suggested, therefore, that the estimate in the Second Plan for vehicle requirements is reasonable, with the reservation that it may have to be enlarged later in the Plan period.

The Special Problem of the Karachi-Hyderabad Road

247. There has recently been proposed a two-lane concrete highway between Karachi and Hyderabad which would reduce the present road distance to around 130 miles. This road is not at present included in the Second Plan. The road would follow a direct line between the two cities and would cost an estimated Rs 100 million. Its primary purpose in the first instance would be to assist the railways to move a part of the additional grain which is to be imported under United States PL 480 aid. Apart from expediting the movement of grain, the proponents of this project feel that it would be a good start towards the badly needed improvement of the country's main arterial highway from Karachi to Lahore. They also feel that the project would provide an opportunity to demonstrate to the PWD how to design and build a high-standard highway with modern equipment. From an economic point of view, the project is probably sound only if it is considered as a part of a program for improving the entire road to Lahore. On that basis, there seems to be a prima facie case that this is one of the most justified roads in the country today.

Inland Water Transport in East Pakistan

248. Inland Water Transport (IWT) is especially important as the only means of transportation in many parts of East Pakistan. It should in the long run be the most economical form for transporting bulk agricultural products throughout much of the Province. Most of this water transport in East Pakistan is carried on non-motorized country craft, usually operated by individual owners. There are no reliable statistics available regarding this trade but it has been estimated by the Inland Water Transport Authority, the organization in charge of IWT in East Pakistan, that it amounts to nearly one billion ton-miles of freight per annum.

249. The country boats dominate the primarily internal traffic carrying unprocessed agricultural products to railroads or directly to mills for further processing. These boats as well as other types of relatively primitive transport such as "head" carrying, act as "feeder" traffic supplementing the railroads or the motorized water craft which are the basis of the long-distance network. Highways usually offer no reasonable alternative as road construction is so difficult and expensive. All East-West traffic even by railroads is roundabout and inconvenient. Waterways are the only low cost alternative to railroads although the quantity that it handles is hard to measure precisely. For instance, despite a total output of grain in East Pakistan of 7,642,000 tons in 1959/60 plus an import of 564,000 tons, the railroads only handled some 1,168,000 tons or 14% of the total. A substantial part of the rest was undoubtedly carried by water. Apparently, there are some 10-15 million tons of produce carried annually by country craft, within the range of, say, 65 to 100 miles. With motorized-craft annually carrying around 200 million ton-miles, IWT probably, today, accounts for 1.2 billion ton-miles of cargo out of a total freight carried in East Pakistan of 2 billion ton-miles. Railroads most likely carry no more than 40% of total traffic with road transport accounting for an insignificant share.

250. The predominant organization in IWT is private enterprise. The mechanically-propelled fleet consists of 800 self-propelled vessels plus 650 dumb craft and in addition there are some 110,000 country craft as well as 200,000 passenger boats of all sizes. Approximately 2,800 miles of navigable waterways have to be maintained increasing normally to about 4,000 miles during the monsoon period. The river districts along the coast, except in the Chittagong area, depend almost wholly on river transport. The Chalna Anchorage facility, a short distance south of Khulna, which has become an important center for exports, is entirely dependent on inland water transport both for exports and for bringing sizeable amounts of imports into the interior.

251. Until recently, the major services necessary for the efficient operation of inland water transport such as navigational aids, maintenance of water channels through dredging and river training, pilotage and salvage facilities, survey of vessels and country craft, maintenance of inland ports, the provision of terminal facilities for passengers as well as for the handling and storage of cargo were spread through a number of diverse independent agencies with no central coordination or control. The result was that the work was inadequately carried out, making inland water transport both inefficient and expensive.

252. As the result of the First Plan's recommendation that many of these responsibilities be transferred to a single organization, the Inland Water Transport Authority was set up in East Pakistan in October 1958. The young organization is now well established and energetically starting the work of reorganizing and improving IWT. The Authority quickly set up schemes for the improvement of navigational aids and development of inland ports, but managed to execute only about Rs. 15 million of this development work out of a First Plan allocation of Rs. 83 million. The Second Plan set forth a somewhat more ambitious program amounting to Rs. 175 million which covers the development of ports, the expanded dredging of the rivers and the modernization and improvement of the inland water transport fleet. The program is modest by any standard compared to the needs of Inland Water Transport in East Pakistan. It is especially modest in comparison with the allocations set forth in the Second Plan for other forms of transport. The Mission recognizes that IWTA is a new organization and must plan its work slowly and realistically. The Mission, however, also believes that it is imperative for the long-term economic development of East Pakistan that the activities of the IWTA be intensified, especially in planning ports, executing river surveys and dredging.

253. The high cost of motorized inland water transport in East Pakistan today is an especially serious problem when it is recognized that it is cheaper, in most cases, to ship by rail than by water. There are real problems before inland water transport can become competitive in all areas where it normally would have an economic advantage. A key problem is the condition of the existing fleet. Ships need to be modernized and new vessels designed especially for East Pakistan conditions so that turn-round time can be significantly improved. The poor state of local shipbuilding yards is an especially serious bottleneck to the improvement and expansion of the fleet. Extensive dredging is necessary as the major rivers in East Pakistan are unstable and tend to silt badly during the annual floods. Channel conditions are extremely uncertain and restrict navigation at night. Modernization of navigation aids is expensive and time-consuming. The organization of dredging also presents problems. In the past, the Government of East Pakistan has usually undertaken whatever dredging was done for the maintenance of navigable channels. With the formation of IWTA and the East Pakistan Water and Power Development Authority, it has been decided to devise a proper formula for apportioning the cost of dredging between the users of the waterways and the Government. This has not been done as yet and all but the most important maintenance dredging has been stopped. Serious siltation seems to be closing up an increasingly large number of channels during the dry season.

254. The cost of domestic ship repair is exceptionally high and places a burden on the industry. The domestic shipyards have been slow and unusually expensive. Another common complaint has been that regarding the price of fuel. Most river craft use coal all of which has to be imported at high cost. Inland water transport is said to pay higher prices for its coal than the railway. Furthermore, the shortage of import licenses had made the modernization and maintenance of the fleets difficult. It is also reported that there are an extraordinary number of taxes and tolls on river transport. For example, it is said that river dues paid by water transport is double that paid by the railway at Chittagong port. The Mission had no opportunity to evaluate all of these points. It is hoped that these problems will be fully examined by the transport survey now underway in East Pakistan.

255. The Mission is especially impressed by the need for a study of the long-term role of IWT. Transport in East Pakistan has been in transition now for over a decade. Most of the trade in this part of the subcontinent had been oriented towards Calcutta before Partition. Transport routes, therefore, had to be redirected. Chittagong despite its poor location far to the southeastern corner of the province, had to act as the main seaport of East Pakistan. It had previously been primarily a railroad port with a limited hinterland and suffered from poor connections across the province in a northwest direction. Water transport from Chittagong was difficult having to face an open sea crossing. The Chalna Anchorage ultimately was the answer for the carriage of commodities by inland water, especially for export. Diversion of traffic developed with the use of this new port and one-third of total foreign trade and much of the exports are now being handled along waterways by the motorized fleet which travels to Chalna. This development, however, also has limitations because Chalna only has lighterage facilities.

Ports

256. The port situation in Pakistan has undergone a substantial change since Partition. At that time, the two main ports were not especially suited to the traffic they were called upon to handle. Both Karachi and Chittagong had only relatively modest facilities for handling imports. The Chalna Anchorage did not exist. Port expansion was thus rightly considered a very important part of early development plans with large sums being spent immediately on Chittagong. The capacity of that port was expanded fourfold by 1955. Karachi Port which had, at Partition, been one of the largest wheat exporting ports of the British Commonwealth was quickly converted to a port capable of handling substantial general cargo imports. Total volume reached 4,000,000 tons by 1952/53, but not without considerable congestion and costly delays to shipping. The port facilities were old and unsuited to the change in the composition of traffic. Most of the cargo berths were over 60 years old and needed reconstruction. They had to be provided with modern electric cranes, storage sheds and a remodelled railway yard. During the First Plan period Rs. 133 million out of a total expenditure on ports of Rs. 183 million was spent on Karachi Port. Much of the work is now soon to be completed.

257. In East Pakistan, although Chittagong's expansion was carried out quickly, its location was convenient only for the area lying east of the Brahmaputra and the Ganges. The demand for a second port for ocean-going vessels to serve the western part of the province led to the establishment of an anchorage at Chalna, a short distance south of Khulna on the river Pussur. This was intended as a temporary location until a detailed survey of the behavior of the river could determine a suitable site for a new port. It has, however, not yet been possible to locate the site of a new port due to the difficulties of a highly unstable river and lightering continues at the Chalna Anchorage.

258. With the expansion of trade in this part of the sub-continent after Partition, especially in imports, the problem of congestion and delay became serious. During the past decade, imports through Karachi doubled and quadrupled through Chittagong. The expansion that has taken place is still not considered sufficient. The Karachi facilities are to be further expanded during the Second Plan period with Rs. 124 million allocated to this purpose. The facilities now being completed as the result of First Plan projects will permit the handling of around 5,500,000 tons of cargo at Karachi. This level of traffic is only about 10% above the peak annual rate experienced during the latter part of 1960. If congestion and delays are to be avoided, additional capacity is needed plus improved handling and storage operations. Poor operational techniques, inefficient management and low overall productivity will have to be eliminated, if capacity is to be effectively utilized.

259. Some progress has already been made. The movement of traffic in the port is being speeded up. There is, however, still room for improved railway operating techniques and the port suffers from occasional shortages of suitable railway wagons particularly for special and heavy loads. The accounting department has been quite unsatisfactory in the past and is undergoing reorganization. The port has been short of suitable skilled personnel and at the present time a number of foreign experts have been assisting the work of the individual departments. Although the amount of congestion has declined somewhat during recent months, there are fears that with the bunching of grain ships soon, delays will reappear. Handling as well as the locating and documenting of cargo continues to be very time-consuming because the cargo must be stored, often as much as miles away from the point of landing. There is still a shortage of berths which forces vessels to "double-bank" and to work into lighters both at berths and at the sheltered anchorage. Heavy lifts may also become a bottleneck with the increased import of heavy machinery and large pieces of equipment expected to arrive early in the Plan period, due to the Indus program. The handling of bulk cargo will probably continue to be one of the greatest causes of difficulty. There are no modern bulk cargo handling facilities. A team of experts has been working on this problem in view of the expected increase of U.S.-aided agricultural shipments. Some mechanical loading equipment is soon to be installed. Grain silos may be built in the port area or near the port, although this program is still under discussion.

260. The Mission is particularly concerned whether the Karachi Port can meet the needs of both the Second Plan and the Indus Basin Settlement Works. The increase in especially difficult cargo such as heavy machinery during the next years will be a serious burden. The port as well as the Government has indicated its confidence that existing facilities can meet these needs, estimating that the Indus loads would only amount to approximately 6% of the total annual imports coming into the port and that the extensions now under construction would be sufficient to permit the handling of this traffic.

261. The Mission suggests the possibility that difficulties might arise from the nature of the traffic. Even if Indus results in an increase of only 200,000 tons per annum for the port, if much of this is heavy machinery and iron and steel, the port may well become very congested. A new 125-ton floating crane is to be obtained and will help solve the problem of heavy lifts but it, most likely, will not be available until 1964/65. There may be as much as 30,000 tons of imported heavy equipment required for Mangla alone. Such an amount of heavy equipment could tie up the port for a substantial length of time if it were brought in over a short period. Serious study will have to be given to this problem if the Indus project is to be carried out effectively.

262. The Chittagong Port presents no comparable problem. It has only recently completed a large expansion which can adequately meet the needs of the next years. About Rs. 88 million was spent on the port before 1955 and Rs. 43 million during the First Five Year Plan period. Thirteen new berths were constructed, most of which have been equipped with modern cranes and related new storage areas and sheds. The facilities and handling capacity of the Chittagong Port do not seem to the Mission to be a limiting factor for the development of this part of Pakistan. The main restrictions to increasing traffic are the limited capacity of the railroad connecting the port and the rest of the country and the inadequate depth of water in the river channel between the sea and the port. Ships drawing more than 23 feet of water are often delayed and can enter the port only at high tide. Furthermore, the channel can only be maintained at this depth through constant dredging.

263. The training of the Karnaphuli River so that it will flow alongside the port's jetties and thus increase the depths within the port area is apparently a very complex problem. Studies have been carried out over many years and there has been some improvement in the river channel. This is very expensive and time-consuming work and will clearly continue to be a major problem of this port. A large expansion of the rail capacity into and out of the port would also be difficult and expensive. For example, doubling the track of the existing railroad north would be so costly that it would be quite prohibitive. The construction of a highway between Chittagong and Dacca as an alternative would also be extremely expensive. An inland water route to permit small IWT vessels to use the port would require a long canal which would probably also be prohibitively expensive.

264. There is no one obvious economic solution to this problem. The selection of one project from among the various alternatives should be justified only after very careful investigation. Moreover, there may also be some partial alternatives. It might be possible to increase the use of the Chalna Anchorage for imports, although this might require improved facilities which must wait upon a careful study of the location of a new port which would be time-consuming and probably costly. A more obvious partial solution might be the use of suitable coastal vessels which could travel directly between Karachi, Dacca and Khulna, absorbing a substantial amount of the inter-provincial traffic that now goes through Chittagong.

The Problem of Coastal Shipping

265. The Mission would suggest a careful investigation be initiated into the whole problem of coastal shipping. At the time of Partition, there were only some 20,000 tons of merchant shipping in Pakistan. The development of a merchant fleet was encouraged and by 1955 some 180,000 dead-weight tons had been placed in service. The ships were, however, mostly over 30 years old, largely uneconomic and due for scrapping. Only about six of them totalling 50,000 tons were reasonably modern.

266. The First Plan proposed the establishment of a national shipping corporation "to participate in both coastal and international traffic" including Rs. 60 million for the purchase of six or seven ships. The Pakistan private companies were, however, very active in investing in shipping, so that a public shipping company was never established. They purchased 10 comparatively new cargo ships at a cost of somewhat less than Rs. 20 million. The Second Plan includes an allocation of Rs. 27 million which is intended for the procurement of three new ships for the coastal trade. Six ships are to be added to the existing international fleet at a cost of Rs. 40 million.

267. The allocation to coastal shipping seems to the Mission to be highly desirable. The Mission, however, believes that the program might be reconsidered, so that smaller cargo vessels of around 1,500 tons carrying capacity and a draft of 12 feet might be used for trading directly to the Dacca and Khulna areas from Karachi. The Mission does not feel that the allocation for international shipping is quite as essential as that for coastal shipping. Perhaps there are some savings in foreign exchange involved in carrying Pakistan trade in its own flag vessels, which would justify the acquisition of a few ships for this trade. Experience has indicated that having Pakistan flag vessels has led to cheaper conference rates for trade to and from the country.

The Program for Civil Aviation

268. Civil aviation is especially important as a link between the two provinces of Pakistan. Furthermore, rapid transportation is difficult in East Pakistan because of the large number of rivers and inter-city communication depends on air transport. Distances are great in West Pakistan making air transport most useful. In some cases, air transport is the only rapid and reliable means for connecting important areas.

269. Air transport was relatively undeveloped at the time of Partition. Karachi was the only first class airport and the industry generally suffered from a shortage of trained personnel and obsolete equipment. Development since Partition has been substantial. The Pakistan International Airlines was formed in 1954 and shortly thereafter three Super-Constellations were acquired for the purpose of linking East and West Pakistan. Terminal facilities and runways were expanded. The Karachi Terminal building was enlarged in 1954. Equipment was obtained to make it suitable for international traffic.

270. The First Plan included a substantial program for civil aviation with some Rs. 78 million allocated of which Rs. 18 million was to be used for the improvement of airports and Rs. 31 million for the acquisition of new aircraft and the construction of workshops. Actual expenditures during the Plan period exceeded greatly these sums amounting to about Rs. 170 million. The construction of a new runway for jet aircraft was started at Karachi toward the end of the Plan period. The runways at Lahore and Dacca were enlarged and strengthened. The Dacca runway is now being extended further to 7,500 feet. An additional two Super-Constellations and five Viscounts were acquired during the Plan period. Three new Fokker Friendship aircraft were recently delivered. One Boeing jet was leased for international service.

271. Operations expanded greatly, the number of passengers carried increasing threefold during the First Plan period to over 200,000. The volume of air freight increased fourfold. The increase in traffic handled has placed a considerable burden on the available equipment. The Dakota fleet of nine planes is overdue for replacement. Two Convairs were taken out of service. Some of the Super-Constellations will soon be due for replacement.

272. The program for the Second Plan period includes some Rs. 196 million for Pakistan International Airlines. This amount covers aircraft now being delivered as well as the purchase of four large Boeing aircraft, along with spares, so that the Super-Constellations now in service may be replaced by 1963. It is expected that an additional two Fokker Friendship aircraft will be obtained during the Second Plan period.

273. The Second Plan also originally included Rs. 100 million for Civil Aviation Department improvements. This amount covered the completion of the jet runway at Karachi together with a proposed hangar for the new jet aircraft. Remodelling of airfields to meet the requirements of medium jet aircraft will be carried out at Chittagong, Dacca, Lahore and Rawalpindi. An alternative airport at Karachi is also included, along with substantial other improvements to a large number of smaller airports throughout the country. The Mission was recently informed that this allocation for civil aviation has been increased by Rs. 100 million.

274. The Mission was impressed with the quality and regularity of air service in both provinces. In most cases, the demand for service seems to exceed greatly the capacity of the planes. There is especially a shortage of passenger space for inter-provincial travel. Inter-provincial freight service is also growing so rapidly that sufficient planes are not available. Freight carried on these routes have increased almost ninefold during the First Plan period and are expected to double by 1964/65. There is the possible use for this purpose of converted second-hand DC-7's or especially designed turbojet cargo planes. The Mission has doubts about the advisability of a large jet program even for inter-provincial service. The four jets now being obtained as part of the Second Plan will cost approximately Rs. 100 million.

275. The Mission, generally, is of the opinion that the requirements of inter-provincial rapid transport might prove to be too great for Pakistan to meet itself. The cost of additional jet aircraft will become an increasingly large burden on the limited capital resources of Pakistan. The Mission believes that consideration should be given to improving the inter-provincial service by permitting foreign flag aircraft to fly between say, Dacca and Karachi or Chittagong and Karachi. The savings in foreign exchange through the use of domestic flag planes are not substantial enough to justify the very large capital required which is, moreover, all in foreign exchange.

The Program for Telecommunications

276. The expected total cost of the program for posts, telegraphs and telephones during the Second Plan period is Rs. 316 million as compared to an estimated actual expenditure in the sector during the First Plan period of Rs. 254 million. The intention of the Plan is to continue the expansion of telecommunication facilities as rapidly as funds will permit. There appears to be a general recognition that higher priority must be given to urban and inter-urban connections if the economy is to continue to grow rapidly. The existing state of telecommunications in both provinces is clearly unsatisfactory despite the significant improvement which has been effected during the past decade.

277. The Second Plan envisages a large expansion in physical telecommunication facilities. There is to be an increase in the number of post offices from 9,850 in 1960 to 11,150 in 1965 and in the number of telephones connected from 75,000 to 120,700. However, this program will still leave capacity short of demand. This is attributable to the low base from which expansion started. At Partition, Karachi had hardly 2,500 telephones, Dacca less than 500 and Chittagong about 100. Lahore had the most modern system but still with only about 2,500 phones connected. Parts of northwestern Pakistan had a few magneto exchanges, inherited from the military, but most of the southern part of West Pakistan and all of East Pakistan, outside of Dacca and Chittagong had no telephone or telegraph facilities. There was no direct connection with the outside world from either province except through India. Pakistan had no facilities for manufacturing telecommunications parts.

278. Since Partition, the expansion of telecommunications facilities has been quite impressive. A radio-telegraph circuit was established between the two provinces. Surplus war equipment was obtained in order to establish a radio-telegraph and telephone connection direct to London from Karachi. Since then, direct connection has been set up with a large number of foreign countries. Repair workshops have been established at Lahore and Dacca. A factory was established in 1954 in conjunction with a German firm for the manufacture of telephone equipment. The number of telephone exchanges was nearly doubled between 1948 and 1955, starting with 64 and a capacity of 15,000 phones to 124 with a capacity of 35,000 lines. Despite this rapid expansion in capacity, by the end of the period, all lines available were being fully utilized. The number of trunk exchanges was increased from 35 to 75 with trunk line mileage growing from 15,900 to 19,100. Since 1955 actual expenditures during the Five-Year Plan period exceeded the original allocation of Rs. 219 million by some Rs. 35 million. The physical achievements were substantial, with the number of telephones doubling from 37,000 to 75,000, the number of post offices increasing by 23% and the number of telegraph offices by 10%. A significant amount of new broadcasting equipment was installed. The number of inland telegraphs increased from 3,246,000 in 1954/55 to 3,481,000 in 1958/59. Inland trunk telephone calls increased from 2.07 million calls to 4.86 million. Telephone calls between the two provinces increased from 33,000 in 1954/55 to over 60,000 in 1958/59. Telephone facilities were made available to 84 new towns in the country with the opening of a number of public telephone call offices.

279. This rapid growth did not meet requirements and the unsatisfied demand was still substantial at the end of the Plan period. In 1960, the Government reported that 20,000 actual requests could not be supplied with telephones. Requirements for all forms of telecommunications were apparently greater than capacity and led the Posts and Telegraphs Department of the Ministry of Railways and Communications to prepare a large expansion program amounting to Rs. 614 million. The Planning Commission after careful consideration of the priorities of the various sectors reduced the proposal to Rs. 316 million. It is proposed to expand existing exchanges by 46,000 phones; new exchanges are to be opened at 65 towns. The capacity of the circuits for long-distance calls is to be increased two and half times. In West Pakistan, a carrier cable system is to be completed from Karachi to Rawalpindi via Hyderabad, Sukkur, Multan, Lyallpur and Sarghoda. There is to be an expansion of the microwave net in East Pakistan. Long-distance circuits connecting Dacca and Chittagong with Rawalpindi and Karachi are to be improved. An increased number of direct connections with foreign countries is also planned. Telegraph capacity will be expanded to at least 200 new places, for the most part, in rural areas. Existing broadcasting facilities are to be increased inasmuch as no more than 10% of the country's area is being adequately served by radio at the present. Although the Mission did not have time to examine this program in detail, in general it seems clear that telecommunications are of high priority and the program quite modest compared to requirements.

Revision of Transport and Communications Program

280. The original transport and communications program for the Second Plan period of Rs. 3,240 million has been revised upward to cost about Rs. 3,940 million. The largest increase, Rs. 440 million in the railroad program seems to the Mission to be justified and necessary if the transport

First and Second Plan Allocations for Transport and Communications
(in million rupees)

Sector	First Plan	Original Second Plan Public and Private	Revised Second Plan Program
Railroads	683	960	1,400
Roads	360	545	569
Road Transport	25	640	640
Inland Water Transport	83	175	175
Ports	130	154	168
Shipping	63	105	105
Civil Aviation	78	296	396
Telecommunications	244	365	412
Unallocated Private Sector	500	-	75
Total	1,922	3,240	3,940

system is to meet demand during the next five years. The Mission is not as confident that the additional Rs. 260 million for the rest of the sector's program is of equally high priority. In fact, there are a number of parts of the original programs such as roads in East Pakistan which most likely could be cutback or spread over a longer period thus holding down expenditures under the Second Plan. The Mission is of the opinion that a target somewhere around Rs. 3,500, or perhaps 10% above the original allocation, should be set for the transport and telecommunications sector in the Second Plan and if additional allocations for specific projects are found to be absolutely necessary and economically justified, they should be included only in conjunction with a comparable reduction in the allocation of some lower priority project.

FUEL, MINERALS AND POWER

281. Fuel and power have been in chronically short supply in Pakistan over the past decade severely hindering the country's economic development. The exploration and domestic production of most minerals has proceeded slowly. Although only modest progress was made during the First Plan period in the field of fuel, minerals and power, expectations are for great improvements during the latter years of the Second Plan period.

282. In the power field, there is a tendency to overemphasize lower priority rural distribution works. The allocations for fuel development are substantial but the problem of fuel is becoming increasingly serious as road transport development becomes more important and as a larger share of power generation is inevitably based on conventional thermal plants. In fuel development, greater reliance on the private sector might remove some of the burden from the Government. The great need in the field of non-fuel minerals is for extensive surveys and exploration in addition to a determination of the economic feasibility of exploiting known mineral deposits.

283. The allocation for this sector in the original presentation of the Second Plan amounted to Rs. 2,050 million including Rs. 850 million for fuel and minerals and Rs. 1,200 million for power. The recent revision of the Plan included an additional Rs. 150 million for fuel and minerals and Rs. 600 million for power. The Mission has received no details on the increase for fuel and minerals. Most of the increase for power is attributed to an expanded program for transmission, distribution and rural electrification. A relatively minor part of these additional allocations is attributable to price increases. The Mission is of the opinion that much of this distribution and electrification program might with advantage be spread over a longer period of time. The technical and administrative difficulties would in any case probably prevent so large a program from being effectively carried out during the Plan period.

The Fuel Problem

284. The burden of importing fuel is causing an increasingly large annual drain on the foreign exchange resources of the country, amounting to nearly Rs. 300 million during 1959. The long-term outlook for replacing fuel imports with domestic production is improving as the result of the discovery and increased exploitation of natural gas. On the other hand, progress in other fuels is not entirely satisfactory. Coal and oil are being produced domestically in very limited quantities and the potentially valuable deposits of peat are only now beginning to be seriously investigated in East Pakistan.

285. The funds expended in this field in the past have been quite substantial. During the First Plan period, about Rs. 463 million were invested privately on gas and oil; a total of Rs. 48 million was spent for the increase of coal production. The total expenditure on all forms of fuel development were thus probably over Rs. 550 million. Physical achievements, however, were disappointing except in the field of natural gas in West Pakistan.

The use of Sui gas went ahead satisfactorily and large additional reserves were proven at Mari. However, in East Pakistan, no substantial gas reserves were proven since the Sylhet field was discovered in 1955. A recent discovery of gas was made by the Burmah oil group at Rashidpur in East Pakistan but the extent of the reserves is yet to be proven. Similarly, there have been recent reports of coal discoveries in East Pakistan. The utilization of peat deposits at Faridpur which originally seemed promising has been found to be very costly to exploit. Attention is being directed to large new peat deposits located near Khulna but serious tests are only now beginning. In spite of considerable expenditure on coal, production has not been satisfactory, increasing only from 540,000 tons to around 720,000 tons during the Plan period. Similarly, despite large private investments in oil exploration, production has only increased by a small amount.

286. The major dependence for fuel for a long time in the future will undoubtedly continue to be natural gas. To date, some 14 million million cubic feet of reserves have been proven of which nearly 60% has been found to be of Sui pipeline quality. The only commitment yet made against these reserves has been those dedicated to the existing pipelines amounting to 2.4 million million cubic feet. There has been some discussion of the possibility of selling Mari gas to India. Even if the growth in the use of gas continues at a rapid rate of increase, as is expected, the total amount would be modest compared to the size of reserves. The Mission believes that for those fuel uses where gas is suitable, such as electric generation, there are sufficient proven reserves to satisfy all legitimate demands for many years to come.

287. The Government's price policy has recognized this satisfactory supply position by attempting to establish prices for natural gas low enough both to encourage its use and also to stimulate industrial development. The present rates charged for gas for large users such as the electric power plants range from Rs. 2.3 per million BTU in Karachi to about Rs. 1.8 per million BTU at Multan which is not especially expensive by the standards of other countries. The cost to other smaller industrial consumers is only moderately higher. These cost levels for gas delivered to small consumers are not only less than the cost of alternative fuels available in Pakistan but also relatively less than the cost of comparable fuel in most countries. Furthermore, costs can be considerably reduced as consumption levels are raised.

288. Under present conditions coal is not a very competitive fuel in Pakistan. The cost of domestic coal even at Daudkhel where coal is mined within a relatively short distance of the consuming areas and is already being used as a feedstock in both a fertilizer factory and for fuel in a cement plant, is still approximately Rs. 2.75 per million BTU. Gas ultimately may even be delivered competitively in this area. The fuel problem basically relates only to those uses such as transport, where gas is not a substitute or those parts of the country where there is little gas as yet, such as East Pakistan. It is to the solution of this important problem that the attention of the long-term planning of the fuel and power sector must be directed.

289. Of a total allocation of Rs. 850 million in the Second Plan for fuel and minerals, Rs. 300 million is earmarked for the public and semi-public sector. Of this amount, Rs. 70 million has been set aside for the expansion of coal production, Rs. 18 million for the development of peat deposits, and Rs. 40 million for surveys, technical services, etc. The Mission is somewhat doubtful if sufficient emphasis is being given to the fuel gap in East Pakistan. The exploration and research on peat development for example has lagged badly. Most Government funds are going into coal, oil and gas where private finance would probably be forthcoming if suitable policies were pursued. It is hoped that private oil, gas and coal prospecting will continue to be encouraged especially in East Pakistan. The Government has indicated that it will continue its policy of encouraging private prospecting, although it has also made arrangements for Soviet participation in the same field in the public sector.

290. The private oil and gas interests have been investing in the country at a rather substantial rate. There are now eight private companies carrying out oil exploration and production in Pakistan with a total investment up to the end of 1959 of nearly Rs. 400 million. The Government has participated in these enterprises in the amount of over Rs. 100 million. During the year 1959 alone, the total investment in the industry amounted to Rs. 68 million of which the Government's contribution was nearly Rs. 14 million. Private international companies and Pakistani interests have joined to construct a Rs. 165 million refinery at Karachi with a capacity of approximately 30,000 barrels of crude oil per day.

291. Substantial amounts of capital have also been involved in the development of the natural gas industry. The total investment in Pakistan Petroleum Ltd. now amounts to Rs. 115 million and in the Sui Gas Transmission Co. Ltd. Rs. 104 million. The industry has grown rapidly in recent years with annual production increasing from 1,587 million cubic feet in 1955 to 22,605 million cubic feet in 1959, although natural gas is still only being produced in three out of ten fields available, namely Sui, Dhulian and Balkessar. Sui gas field owned by Pakistan Petroleum Ltd. is connected to Karichi by a 16-inch, 347-mile pipeline and also to Multan by a second line of some 217 miles.

292. The need for gas to the north of Multan has resulted in a proposed extension of these gas lines from Multan northward to Lyallpur, Lahore and Rawalpindi. Preliminary estimates indicate that such a new transmission network may cost about Rs. 150 million. There has been some discussion concerning the possibility that the Government's participation in the gas business might be increased by assuming the responsibility for this project. A decision has recently been made that this should not be the case. With capital and managerial resources as scarce as they are at this time, the Government can ill-afford extending itself too far into this field while private participation seems to be available. The importance of meeting the fuel needs of the northern part of West Pakistan can hardly be exaggerated. It is vital that the project be carried out as expeditiously as is possible. The Mission was informed that the construction of the pipeline could be completed in one working season but that it could not start until the Gudu Barrage was far enough along to carry the line and this would probably not

be possible before 1962. In other words, the pipeline probably cannot be completed until 1963/64. The Mission would hope that this schedule could be improved upon.

293. The possibility that extensive new gas reserves may be available in East Pakistan warrants the most serious attention. The most important natural gas field now proven is in the area of Sylhet where reserves of high-quality gas are relatively small, estimated at around 280,000 million cubic feet. Another small field near Chhatak has even less in the way of reserves amounting to some 20,000 million cubic feet. The Sylhet field is already committed to supply the Fenchuganj fertilizer plant and power station. The Ministry of Fuel, Power and Natural Resources estimates that only modest amounts of Sylhet reserves are still available for other purposes. Similarly, the Chhatak gas field is mostly committed to the supply of the neighboring Chhatak Cement Plant. As indicated earlier, there are hopeful indications that large quantities of gas are available at Rashidpur. The Mission was informed that the new wells drilled show promise, although the size of the field is yet to be determined. This development is so important for the economic future of East Pakistan that it should be watched very closely. All of the long-term power planning for this part of East Pakistan will have to be related to the quantity of gas reserves that are eventually proven.

294. The coal program has absorbed a substantial amount of public sector capital yet it has shown little in the way of results. Proven deposits of economically exploitable coal are located only in the more remote regions of West Pakistan although there has been a report of a new discovery in East Pakistan. The extent of the deposits after years of exploitation even in West Pakistan is not fully known. The quality of the coal is not especially good; its location is difficult and it is too expensive to be exportable either to East Pakistan or even to most part of West Pakistan. It is mainly used in brick and cement kilns located relatively close to the mines. Output remains modest although it has increased from 241,000 tons in 1948 to 733,000 tons in 1959.

295. The Second Plan proposes a reasonably ambitious program for the public sector coal industry. Total coal output per annum is to be increased to 1,500,000 tons by the end of the Plan period. Four units capable of producing 3,000 tons of coal per day would be established in the public sector at a cost of Rs. 70 million. Modest additional funds have also been allocated to the private sector for increasing its output. A plan for setting up capacity for a limited amount of coal carbonization at a cost of Rs. 30 million is included in the Plan and is expected to convert approximately 100,000 tons of coal dust per year into coal briquettes and coal distilled products. The Mission questions whether it is desirable that the public sector role in the coal industry be enlarged. It might be more reasonable to encourage the private sector to make an even greater effort than is already envisaged in the Plan.

296. The peat program is especially important for the region west of the Brahmaputra in East Pakistan. A series of very preliminary tests have been carried out on some rather extensive deposits in the Faridpur district.

The results have not been promising. Exploitation would be difficult and expensive as the region is underwater much of the year and as a result efforts are now being shifted to other deposits in the Khulna area. The Mission would emphasize the importance of evaluating the economic potential of these Khulna peat deposits as soon as possible and would hope that the most energetic attention could be given to this problem. The allocation of Rs. 18 million in the Plan for the development and exploitation of peat may prove to be inadequate especially if the program is to be pursued vigorously. The difficulty, however, is not only the financial resources available for the program. Several foreign advisers have been at work for some time. If they are effectively utilized the necessary investigations can undoubtedly be carried out within the next several years.

The Electric Power Program

297. The electric supply industry has been making substantial progress during the past decade as the result of large capital expenditures. The First Five-Year Plan allocated some Rs. 460 million for generating and transmission equipment. The Second Plan expects to carry this program still further with a large increase in expenditures for transmission and distribution facilities. Its justification is based on the rapid growth in power demand and the present unsatisfactory state of electric supply.

298. Generating capacity has been installed at an annual rate of more than 16% since 1947. Nearly 200,000 kw were installed in the period between 1947 and 1955 and an additional 560,000 kw during the First Plan period. Such a growth of electric capacity is unusually rapid for a period as long as 12 years even for a developing country like Pakistan. However, despite this growth in capacity the shortage of electricity continues to be a serious impediment to the industrial development of the country. The Mission found that, despite the availability of capacity, in few parts of the country is an adequate electric supply being made available to the consumer. As the result of the completion recently of several large projects, there is a feeling of confidence within Government circles that if transmission and distribution programs are carried out as expected the power situation will improve greatly during the early years of the Second Plan period. The Mission believes that with the proper management of the facilities that are becoming available, this should be possible, although there is some doubt that the transmission and distribution schemes need to be as extensive as planned.

299. There can be no doubt that serious attention will have to be given to the fuller utilization of the new power stations that have already been installed in the country. The Government itself in the Second Plan places "higher priority to transmission and distribution of existing power than to generation of additional power." The major issues revolve around the distance over which the transmission of electricity in Pakistan is justified, the extent to which small villages and rural areas should be electrified, and perhaps the overall question of whether the Second Plan is too ambitious in this sector.

300. The Second Plan for electric supply was originally estimated to cost around Rs. 1,200 million. Of this sum about Rs. 400 million or the same as in the First Plan was set aside for new generating equipment, with an amount of nearly Rs. 800 million for transmission and distribution facilities, as compared to only Rs. 260 million for such facilities during the First Plan period. Since the Mission's return the allocation for the sector has been increased substantially. Rs. 437 million additional have been included for distribution of power and rural electrification in West Pakistan alone. The West Pakistan high tension grid and secondary transmission and distribution system is estimated to have increased in cost by Rs. 83 million. In total the allocation for electric power has increased by some Rs. 600 million and according to the latest estimates available to the Mission now amounts to Rs. 1,800 million.

301. Despite the fact that most of the funds are allocated for transmission and distribution, the generating capacity installed in the country will continue to increase at a very rapid rate. Large projects for which substantial amounts have already been expended will reach completion during the Plan period. For example, in East Pakistan, the Kaptai plant on the Karnaphuli River which has been under construction for many years will upon its completion in 1962, result in an increase in capacity of 80,000 kw. Its expansion later in the Plan period will add another 40,000 kw. A 36,000 kw plant also started some time ago will soon be completed in conjunction with the new fertilizer plant at Fenchuganj. Some 200,000 kw of new capacity are scheduled for installation in the Indus Basin region during the next five years but nearly 60,000 kw of this are the result of projects which were started during the First Plan period. The recently completed Warsak Hydro plant is to be expanded by 40,000 kw. Several of the newly completed thermal stations are also to be expanded. The Multan station is to be enlarged by 150,000 kw and 60,000 kw is to be added to the newest thermal station at Karachi.

302. The new projects in the Second Plan for the most part involve transmission and distribution networks. As a carry-over from existing plans, Dacca and Chittagong in East Pakistan are to be connected to the new Kaptai hydro station by a high-voltage transmission line. As a part of the Second Plan, this transmission line is then to be extended to the northeast to connect to the Sylhet area and the new 36,000 station at Fenchuganj. On the other side of the Brahmaputra, in the western part of East Pakistan, a separate high-voltage line is to be constructed to connect the new Goalpara steam station at Khulna with Jessore and in turn with the new Bheramara plant. Expansion of the West Pakistan high tension grid has been under construction with a 220,000 volt line from Multan to Lyallpur and some lower voltage lines from there to Gujranwala, Shahdiwal, Rasul and Lahore. In the north, the new Warsak station is to be connected to Wah and Rawalpindi by a 132,000 volt line. This line is then to be tied to Multan and Lyallpur by a double circuit 132,000 volt line. It is intended that there also be a double circuit 220,000 volt line from Wah to Pyallpur.

303. In addition, there is now included a very large program for the electrification of some 1,000 villages per annum. This program, according to the Pakistan Government, will be related to tubewell irrigation with the electrification of villages starting with those located reasonably close to tubewell pumping stations. However, even for locations near tubewells the cost of rural electrification is obviously high although varying greatly in the different parts of the country. The timing of electrification and the location of each village must depend in each case on the economics of supplying power to particular tubewell irrigation projects. If a village is located near a tubewell which is to be installed in any case, then there may be sound justification for the electrification of homes within a certain distance of the pumping station. The Mission did not feel that it has received enough information concerning individual schemes to make anything but a most preliminary judgment in this matter. It does, however, feel that the information presented is quite inconclusive and that there is a prima facie case for proceeding with this whole program only very slowly. The low population density in most of the areas where electrification is expected to take place introduces an element of economic doubt into the program. The number of consumers that WAPDA expects will take electricity once it is brought to the villages seems to the Mission to be way out of proportion to what can be achieved considering the existing income levels in these rural areas of Pakistan. The Mission is of the opinion that a certain amount of rural electrification is clearly justified by its being located close to tubewell pumping stations, but with the shortage of financial resources in Pakistan and the limited administrative capability in the electric field, this program should begin slowly. Other parts of the electric program merit higher priority.

304. The supply of electricity for the Karachi area is an especially pressing problem. The expansion of generating capacity from 26,000 kw in 1954 to 63,000 kw in 1960 has not been sufficient to keep pace with the growth in demand inasmuch as the population has grown from 500,000 at the time of Partition to 1,916,000 at present. Although the Karachi electric company has made a significant effort to satisfy the most urgent demand by absorbing some 55,000 new customers over the period, the backlog has continued to be large. The company's sales grew at an annual rate of well over 20% over the twenty-year period since 1940 which is almost an unprecedented growth performance in an industry where growth is commonplace. Growth might have been even more substantial were it not for the existence of severe restrictions on the use of electricity. The peak load has grown tenfold between 1940 and 1960, and is expected by the company immediately to absorb fully all of the new diesal capacity that is now being installed with the financial assistance of the Bank. The company expects that the demand will continue to be unsatisfied until additional capacity is available in 1962. Even then if all restrictions are removed, capacity will have to continue to grow substantially. The company estimates that by 1965, demand will have reached the neighborhood of 175,000 kw and around 300,000 kw by 1970 compared to capacity which will only reach 110,000 kw in 1962. Although the Mission has not had the opportunity to study these estimates in detail, in general they seem reasonable in view of the apparent development taking place in the area. In fact, even if the company is able to meet the maximum demand indicated in the above forecasts by the Third Plan period over half

of the homes in the city of Karachi would still be left without electricity connection. The Mission was impressed with the many industrialists complaining of the shortage of power. Most of these consumers seem to want to be supplied from the central Karachi system and have expanded their own captive facilities only because of the existence of severe power shortage.

305. Electric capacity can only be expanded in Karachi at the rate required to meet demand if the electric company is permitted to be financially sound. Even then, there will be difficult problems to be overcome. As in all other parts of Pakistan's electric supply industry, finding experienced personnel to handle the expanded modern facilities which are being installed is proving most difficult. It has been found that it is impractical to expect to recruit an entire staff of men of suitable qualifications and experience in Pakistan to operate and maintain such facilities. Employing suitable top engineering people is one of the key problems which must be solved if a satisfactory electric supply system is to be maintained. The Mission was not fully encouraged that enough progress is being made in finding sufficient people to operate electric plants that are now already in existence.

306. Electric supply outside of Karachi presents equally serious problems which are now being met by two new semi-governmental organizations. In April 1958, recognizing the need for centralizing and coordinating power development, a new semi-autonomous agency was organized for West Pakistan, called the Water and Power Development Authortiy (WAPDA). A similar authority was established shortly thereafter in East Pakistan. These organizations are now responsible for unifying, planning and expanding the power facilities in all of East and West Pakistan outside of Karachi. They are to operate on commercial principles setting their own rates at a level to cover all operating costs, interest charges and depreciation, the payment of taxes (if any) and a reasonable return on investment. Both organizations have been working on comprehensive plans for the unified development and utilization of water and power resources in each of the two Provinces of Pakistan. Although they have only been in existence for a short time both WAPDAs impressed the Mission that they are determined to bring order and reasonable efficiency into the chaotic conditions they inherited in this sector. A large number of consultants have been employed and the Mission feels that in general, they are being effectively used. There are still many problems to be solved but in general the overall organization of the electric supply industry has been set up in a satisfactory manner.

307. West Pakistan WAPDA has already made progress in improving their main transmission grid zone which covers a triangular area enclosed by Multan in the south, Peshawar in the north and Lahore in the east. This area which includes most of the potentially large power markets in West Pakistan outside of Karachi already covers an area with a population of more than 30 million. Electric sales in this area have increased over twelvefold in the last 12 years, with the peak load of the system growing from 27,000 kw to 115,000 kw or at an annual rate of about 13%. The number of electric consumers has grown from 58,700 to 275,500 despite the imposition of a series of restrictions and the existence of inadequate transmission and distribution facilities. Now that restrictions are being removed and major parts of the transmission network are approaching

completion, the load is beginning to grow even more rapidly. It increased from 115,000 kw to 160,000 kw during 1960. The capability of the system to meet this growth in demand has improved substantially during the past year, with installed capacity reaching 448,225 kw.

308. The operating of this system is very much related to the availability of water. During the winter months, especially December, the large thermal power plant at Multan can only be operated by recycling the water because of the shortage of water in the river. The capacity of its cooling towers sets a limit on firm capability from 130,000 kw to 104,000 kw. The system has a further disadvantage in that 91,000 kw of hydro are "run of the river" plants with no storage capacity which means that they can only be operated to the extent that water is flowing in the river. In minimum water years, it is estimated that these plants can produce no more than 56,000 kw of firm power. There is a similar problem at Warsak which has only limited storage capacity. The amount of firm power is limited to a fraction of the full 160,000 kw of capacity installed. For these reasons, WAPDA's installed capacity of 448,225 kw in this area is equivalent to hardly more than 200,000 kw of net firm capacity in the winter during years of minimum water flow. This presents a serious problem since WAPDA's consultants expect the demand on the grid to reach 445,000 kw by mid-1964 and 675,000 kw by 1968, whereas the only additions now included in the Second Plan involve the expansion in the capacity of the Multan thermal station by 150,000 kw.

309. WAPDA has proposed two alternative solutions for meeting this expected future gap between capacity and demand neither of which is included in the Second Plan. A large hydro development has been surveyed at an excellent site called Kunhar in the north with a first stage capacity of 200,000 kw at a cost tentatively estimated at Rs. 480 million. Recent reports indicate that this project will probably be postponed indefinitely. The alternative, according to WAPDA, would be to build a new thermal station someplace in the neighborhood of Lyallpur along the line of the projected northern gas pipeline extension. The cost of such a thermal plan would be about one-third of the cost of the first stage of Kunhar.

310. The Mission doubts that the load in this area will actually grow as rapidly as WAPDA assumes. Rural electrification and tubewell irrigation will probably grow more slowly than the assumed addition of 50,000 kw each year. The expected gap will probably be substantially lower than that projected by WAPDA for 1965 and 1966. Furthermore, the Mission is satisfied that if Warsak is operated primarily as a peaking plant during the driest months as has been proposed by WAPDA itself then the system's firm capacity in 1965 would be sufficient to handle a peak load of at least 450,000 kw or even slightly more. This would, of course, necessitate very skillful system operation and maintenance. WAPDA now only has a limited number of experienced engineers and mechanics. Many of those that have experience have worked little with the relatively high pressure equipment that has just been installed at Multan. Load dispatching will be a difficult problem not only because of the new long distance transmission lines but especially because of the balancing required between hydro and thermal in the enlarged system. The Mission is of the opinion that it may be necessary to obtain a number of experts from outside the country to assist in the operation of the system during the next years.

311. Some additional expansion may still be required for the latter years of the Second Plan or in the year or two before 1968 when a new 300,000 kw hydro station is expected to be completed at Mangla Dam as the result of the Indus Basin settlement Works. The Mission believes that the advantages of meeting this gap by a thermal approach far outweigh a hydro solution such as Kunhar. Preliminary planning for a new thermal station could begin at once. Gas probably will be available at Lyallpur according to the latest estimates by 1964. The timing and size of such a thermal station could then be related to the way the load actually does develop during the next year or so. The Mission is of the opinion that it is very possible that the gap may not materialize until 1966 and that in any case it may be quite a modest one, but the cost of failing to meet demand is so great that planning and preparation for additional expansion must be started at once.

312. In the areas outside of WAPDA's grid zone, a program is already underway for the installation of new central generating facilities and the establishment of local transmission networks surrounding the cities of Sukkur, Hyderabad and Quetta. These regions are now in early stage of power development, together having a total of only around 16,000 kw of installed capacity. WAPDA expects that the load in each of these areas will grow very rapidly and, therefore, that a program for the installation of some 60,000 kw is justified for the Second Plan period. The Mission feels that this program is perhaps somewhat overly ambitious but no effort has been made to evaluate it in detail.

313. Power development in East Pakistan has been proceeding in a fairly satisfactory manner. Utilities in the public service with only about 7,000 kw of installed capacity at the time of Partition had 105,000 kw in service by the end of 1960. Even including some 15,000 kw which were privately-owned by industrial establishments, in 1947 there were less than 25,000 kw of capacity in East Pakistan, compared to a total of 188,000 kw at the end of 1960. Substantial sums were spent in East Pakistan during the First Plan on power. It is intended that the program continue with some Rs. 288 million allocated for the East Pakistan part of the Second Plan power program. Most of this amount is intended to cover transmission and distribution facilities to connect stations that are either now complete or will soon be completed. The Plan anticipates a 156,000 kw increase in generating capacity in East Pakistan consisting of 120,000 kw at the Kaptai hydro station on the Karnaphuli River and a 36,000 kw installation at the Fenchuganj fertilizer plant. Both of these projects are far advanced and should be completed early in the Plan period. In the field of transmission and distribution, Dacca and Chittagong are to be connected to the new Kaptai station by a high-voltage transmission line which should also be completed early in the Plan period. The northeast part of the Province will be brought into the same grid by a high tension line to the Sylhet area which will connect to the Fenchuganj power plant. Another grid will be established with the installation of a separate high-voltage line interconnecting the Goalpara and the Bheramara thermal stations. A substantial part of this work is already underway.

314. It is intended as a result of the Plan that two major grid systems will ultimately be established in East Pakistan separated by the Brahmaputra River, In the proposed Eastern grid area, there is now an installed capacity of over 120,000 kw, which will be increased to more than 235,000 kw during the Plan period as a result of the expansions noted above. The WAPDA consultant's forecast of peak demand for the major consuming centers east of the Brahmaputra indicates a growth to 130,000 kw by 1963 and to some 228,000 by 1967. The Mission is of the opinion that this forecast may prove to be somewhat overly optimistic, inasmuch as it assumes a very large growth in the consumption of electricity in small towns and villages. In any case, even if the projected load growth actually were to materialize as forecast the capacity that is already in the process of being installed would prove sufficient until the Third Plan period.

315. For the longer term needs of the Eastern grid area, East Pakistan WAPDA has been considering several thermal alternatives. Hydro possibilities are very limited and more thermal capacity will be necessary for the future. The largest single unit now in operation in East Pakistan is only 10,000 kw. The type and location of future thermal plants will be intimately related to the results of the current exploration for fuel. Gas is already available as the fuel for one large power plant at Fenchuganj. Perhaps there may be sufficient gas reserves for another comparable unit. Substantial peat deposits have been reported near Tippera and Sylhet. Recent reports also indicate there may be coal in East Pakistan. In recent months, the Burma-Shell group have found a new sizeable gas deposit at Rashidpur in the Sylhet area. The extent of the gas reserves is not yet proven but it does offer the promise that additional future electric facilities when and if needed could be located in this area.

316. The region west of the Brahmaputra with relatively less population and with less development from the point of view of power consumption has a current installed capacity of about 70,000 kw and a peak demand as of mid-1960 of only 30,000 kw. Most of the capacity is relatively new and will clearly be usable for many years to come. For this reason the Second Plan did not include any additional capacity for this part of the country. WAPDA forecasts that the existing facilities will be more than adequate to meet the expected demand through the Second Plan period.

317. The longer term situation is less clear. WAPDA expects that demand will grow rapidly and reach a level of 115,000 kw by 1967. It is the intention to meet the additional requirements with diesel units. Consideration has also been given to the feasibility of linking the area west of the Brahmaputra to the eastern grid transmission net. Crossing the large number of rivers, however, would present formidable technical and economic problems. A more promising alternative would be some new thermal capacity related to the Khulna peat deposit if investigation proves this feasible. A nuclear energy plant is another alternative being considered. The Mission is not confident that small nuclear plants of the size suitable for East Pakistan will be economical for many years to come. The feasibility of such a small atomic energy plant in East Pakistan might however be usefully investigated.

318. The need for continued development of thermal capacity presents the East Pakistan WAPDA with the serious problem of developing skilled engineers and operators in the electricity field. Experience to date at both of the new steam plants at Siddhirgang and Goalpara has not been encouraging. The shortage of skilled technicians and maintenance workers has already resulted in some breakdowns. The operation and maintenance of both new steam units and 132,000 volt transmission lines is a challenge to the limited experience of the engineers and the technicians available in East Pakistan. The Mission would hope that the technical training center proposed by WAPDA would be given high priority in future planning and that a serious effort would be made to set up a joint program for East and West Pakistan. The Mission feels that in the final analysis this lack of personnel is the weakest link in the whole electricity program.

319. The question of rate levels and regulation also presents a problem. Wherever the Mission went in Pakistan, there was criticism that electricity rates are too high. The Mission does not believe that this position is based on fact. In general, rates are reasonable in comparison to costs and to comparable rates in most countries. Partly as an outgrowth of the rate issue there has been some discussion towards setting up a regulatory power commission. The Mission feels that at this stage in the development of the electric supply industry, in the light of the very encouraging starts made by both WAPDAs, it would be a mistake to introduce an additional supervisory organization.

THE POPULATION PROBLEM AND THE SOCIAL SECTOR

Population

320. The population of the country is growing at a rapid rate. The 1951 census indicated a population of 75.8 million persons, 42.1 million in East Pakistan and 33.7 million in West Pakistan including Karachi. For planning purposes the Government assumed that the rate of growth at the time of the 1951 census was 1.4% annually. Using this rate of growth, population was assumed to be 89.6 million in January 1961. A somewhat accelerated rate of growth was assumed for the Second Plan period, namely 1.8%; and at this growth rate population would reach 96.1 million by January 1965.

321. A census was taken in January 1961 which revealed that the actual population was already 93.8 million, or 4.2 million larger than had been previously estimated, with 50.8 million in East Pakistan and 43.0 million in West Pakistan. Thus, the apparent rate of growth over the last decade has been 2.2% annually. However, there are reasons to believe that the apparent rate of 2.2% for population increase cannot simply be projected for future growth rates. The 1951 census underenumerated females, particularly in East Pakistan, and also underenumerated population in the tribal areas, particularly in West Pakistan. In addition, Pakistan received a net addition of 1.1 million persons, of whom 733,000 came to East Pakistan and 379,000 to West Pakistan, during the inter-censoral period of 1951-1961. While the effect of these factors cannot be fully quantified, it may be reasonable to assume an average annual rate of population growth of 2% over the Second Plan period which would imply a population of 101.5 million by January 1965, approximately 5.4 million larger than the Plan assumed. The difference between a rate of future population increase of 2.0% and the one of 1.8% assumed by the Plan is less significant than the underestimation of the current population level.

Employment

322. The long-term employment situation seems likely to deteriorate if the present population growth continues. Planning Commission estimates indicate a labor force of some 28.3 million for mid-1960. With the increase in population now shown by the 1961 census, the labor force is presumably now somewhat higher, amounting to 29.4 million, with some 23.0 million in agriculture. Furthermore, the total will reach 32.6 million by mid-1965, and about 38.0 million in 1970. If such a growth were to continue for a twenty-year period, the labor force would increase by some 17 million. The growth in the labor force to 1965 in absolute terms will probably be as much as 3.2 million as compared to the previous estimate of 2.5 million. If unemployment is not to increase, the majority of these people would have to find non-farm employment. The problem of avoiding an increase in both unemployment and rural under-employment is even more serious now than at the start of the First Plan.

323. The First Plan, as originally conceived, allowed for a substantial expansion of job opportunities. There are no reliable estimates as to what the actual achievement has been, but it seems certain that unemployment has increased during the Plan period. The Second Plan set as its goal the creation of a large number of employment opportunities to cater for all new entrants to the labor force in addition to reducing the backlog of unemployment. The Plan envisages a large increase in employment as the result of all the construction activity included in the programs of water and power development, rail and road building, new industries, housing, etc. It is also expected that the Indus Basin Settlement Works will result in sizeable new employment.

324. The Planning Commission estimate of new jobs created, although by no means conservative, nonetheless would indicate a continued growth in unemployment. The addition to the non-agricultural employment at the end of the Plan would be of the order of 1.7 million, whereas the labor force is now expected to increase by 3.2 million. Agriculture can hardly absorb more than modest amounts of the increase considering the large amount of under-employment already existing in that sector and the small amount of colonization in new areas which is feasible. Even these estimates may somewhat overstate the possible achievements of the Plan. For example, the latest estimate of labor requirements for the Indus Project would indicate around 55,000 jobs when construction reaches full activity rather than the 110,000 assumed in the Planning Commission data. Similarly, there is some doubt that manufacturing, especially in the small scale sector, can create as many jobs as are indicated in the following table.

Planning Commission's Tentative Estimates of Potential Increase in non-agricultural Employment At the End of the Second Plan Period (in '000)

Mining and Quarrying	10
Manufacturing	
Industry Section Program	
Large establishments	196
Small establishments	225
Other Generated Employment	
Construction Materials	20
Other than Construction	20
Transport and Communications	136
Water and Power	
Power	34
Drainage, canals, etc.	76
Indus Basin Settlement Works	110
Construction	
Housing	100
Miscellaneous Construction	100
Education, Health, Other Public Services	100
Trade and Services	600
Total	1,727

325. These are the background considerations against which Pakistan's planning must be viewed. By mid-1965, some 3.2 million new jobs must be created to keep from moving backwards. The amount that can be spent on housing and social welfare must be balanced against the amount that must be spent for directly creating employment opportunities.

Housing, Water Supply, Drainage and Sanitation

326. The population growth is causing its most severe problems in the urban centers of the country. The rate of growth of urban population is now more than double that of the non-urban population. It is also unlikely that the very rapid increases in population that have occurred in the larger cities during the recent years will slow down appreciably. Consequently, demands for urban housing, water supply, sewerage and other community facilities which have been increasing will play a most important part in the development plans of the coming years.

327. The development or improvement of the village economy based on traditional crafts, even if associated with a substantial increase in the levels of output in agriculture, cannot alone be expected to achieve the goals set in the Plan. A base must be laid towards the transformation of the Pakistan economy. If this is to be done, it means large expenditures on overhead projects for power, transport, etc. Large expenditures are needed for new industries. If, therefore, these developments are to take place without interfering with the needed improvement in agriculture, caution will have to be observed in the social welfare sector and priorities weighed carefully.

328. The housing and community facilities problem has been acute in Pakistan. After Partition, millions of people were displaced, with more than a million and a half new people settling in Karachi alone. Similar displacements took place in practically all towns in the country with slums and over-crowding, causing very bad living conditions. Housing, water supply, sewerage, drainage systems were totally inadequate throughout the country.

Population and Housing Situation in Representative Cities in West Pakistan

City	Population ('000) 1951	Population ('000) 1961	Rate of Annual Growth in %	Occupied Dwellings ('000) in 1961	Persons per Dwelling
Lahore	849	1,297	4.33	192.6	6.8
Lyallpur	179	426	9.05	71.3	6.0
Multan	190	358	6.53	47.8	7.5
Gujranwala	121	197	4.99	22.7	8.7
Sial Kot	168	168	-	234	7.2
Sargodha	78	112	3.68	15.7	7.1
Montgomery	50	75	4.13	11.9	6.3
Rawalpindi	237	343	3.76	54.8	6.3
Peshawar	152	213	3.43	29.6	7.2
Karachi	1,068	1,916	6.02	313.9	6.1
Quetta	84	107	2.45	19.2	5.6
Sukkur	77	103	2.95	16.8	6.1
Total W. Pakistan Urban Population	6,019	9,180	4.31	-	-

329. The First Plan, recognizing this situation, allocated some Rs. 861 million in the public sector alone for "the most essential needs". Achievements were, however, somewhat spotty. The construction of Government offices and luxury housing led the field, whereas public housing, water supply and sewerage lagged badly. The general housing situation was no better at the end of the Plan period than it had been a decade earlier. Around 85% of the people continued to live in relatively primitive huts or houses made of bamboo or mud bricks. The few indications available show that the housing situation apparently deteriorated somewhat during the First Plan period. According to the housing census of 1960, in West Pakistan there was an average of 7.1 persons per dwelling as compared to 6 persons as reported by a 1955 ILO Manpower Survey. The latest indications for the larger cities are listed in the above table.

330. The First Plan indicated that there was a backlog of demand for about 1,000,000 houses in 1955. Water supply, sanitation and all public health conditions were critically sub-standard in most urban areas. The plans for the period 1955 to 1960 were ambitious but they hardly made an impression on the problem. Some refugee housing was constructed in West Pakistan, but in East Pakistan practically no low cost housing was completed by the Government. About 50,000 new tubewells were to be sunk for local water supply and 38,000 old ones to be resunk in East Pakistan, but only 3,000 were completed. Very little municipal water supply work was completed in West Pakistan except in Karachi. Moreover, the public housing program lagged badly throughout the country.

331. The scale of the problem is illustrated by considering the number of persons per dwelling in the country. If the current ratio of about seven is not to worsen, then at least 330,000 new dwellings will be required. The Second Plan has indicated that under the most favorable circumstances, the private sector could not build more than 300,000 new urban dwelling units in the whole country. If the Plan is carried out as projected, the public and semi-public housing may result in additional 100,000 units. In other words, the program as it is now set up will have to be executed effectively if the housing situation is not to deteriorate even further.

332. The Second Plan as originally presented allocates for this program including water supply, sewerage, etc., some Rs. 2,840 million, of which Rs. 1,315 million would be in the public sector, compared to an expenditure in the public sector of Rs. 740 million during the First Plan period. The Second Plan has recently been increased to include an additional Rs. 610 million for the public sector and Rs. 60 million additional for the semi-public sector. The largest increases are for housing and urban water supply.

333. The Plan for this sector, as indicated in the table below, is most extensive, now amounting to over Rs. 3,500 million. The responsibility for its programming, designing and execution is widely dispersed and, according to Government experts, in great need of substantial administrative reorganization. The first priority for public funds for housing is an allocation of Rs. 400 million for land development and houses for shelterless displaced persons and other low income groups. This allocation has recently been increased by Rs. 100 million. The target is that up to 300,000 plots should be developed for this purpose. What are called "nucleus units" will be built. The plots, once established, will be improved by the people themselves. The House Building Finance Corporation is expected to subscribe Rs. 200 million towards construction of housing primarily for low income groups, Rs. 120 million of which will come from the Government. An additional sum of Rs. 160 million is allocated in the Plan to meet the growing needs of the improvement trusts and similar semi-public organizations. The Karachi Development Authority is expected to undertake a housing and land development program of Rs. 200 million during the Plan period. The Plan allocates Rs. 160 million to meet the essential needs of the Dacca Improvement Trust, Chittagong Development Authority, the proposed Khulna Development Authority and other local bodies in East Pakistan. About Rs. 60 million is allocated for housing to meet the most essential needs of Government servants. Plans for the construction of a new Capital at Islamabad involve an allocation of Rs. 200 million during the Plan period plus an additional Rs. 20 million to meet the needs of the Capital at Dacca.

Second Plan Development Program for Housing and Settlement 1960/61 to 1964/65
(in million rupees)

Public Sector		
Basic Development Program		
Essential Organization of Services	2.8	
Planning Surveys and Legislation	3.4	
Preparation of Town Plans	18.0	
Regional land use maps, studies and village planning	5.5	
Building Materials & Housing Research	4.9	
Colleges of Architecture & Town Planning	6.0	
Vocational Schools for Building Trades	1.4	
Total		42.0
Housing		
Plots & nucleus houses for Shelterless Displaced Persons and Low Income Groups	400.0	
Houses for Government Servants	60.0	
Ancillary Projects	10.0	
Total		470.0
Water Supply and Sewerage		
Projects for Selected Rural Areas	75.0	
Projects for Selected Urban Areas	50.0	
Total		125.0
New Capitals and Government Offices		
New Office Buildings	30.0	
New Capital at Islamabad	200.0	
President-cum-Governor's House & New Capital at Dacca	20.0	
Total		250.0
Housing and Settlements Schemes of Special Regions		8.0
Total Public Sector		895.0
Semi-Public Sector (by Location)		
Karachi Water Supply & Sewerage Project	110.0	
Water Supply & Sewerage Projects for Dacca & Chittagong	160.0	
Land Development & Related Schemes of KDA	200.0	
Schemes of Trusts and Local Bodies in W. Pakistan	160.0	
Schemes of Trusts and Local Bodies in E. Pakistan	160.0	
Industrial Workers Housing Corporations	20.0	
Total Semi-Public Sector		810.0
Private Sector (by Location)		
Private Housing Activities in Urban Areas	950.0	
Private Construction Activities in New Capitals at Islamabad and Dacca	185.0	
Total Private Sector		1,135.0
Total		2,840.0
Increases due to Revision of Plan		670.0
Revised Total Plan		3,510.0

334. The largest burden in the housing field is expected to fall on the private sector. The target during the plan period for such investment is estimated at Rs. 1,135 million, of which Rs. 950 million is for dwelling houses throughout the country and Rs. 185 million on housing and related activities at the capital areas of Islamabad and Dacca. The planning authorities indicate that under the most favorable circumstances, this investment will result in some 300,000 new dwelling units during the Plan period. In any case, the success or failure of the housing program will depend to a great extent on how successfully the private sector contributes to building non-luxury housing. The results of the past have not been encouraging.

335. There is great need for clean drinking water and sanitation. The Plan provides Rs. 125 million for this purpose for selected urban and rural communities. The recent increases have added Rs. 110 million for this work. About Rs. 160 million is included for the most urgent needs at Dacca and Chittagong and Rs. 110 million to cover the cost of water supply and sewerage needs at Karachi. These projects are all in the advanced planning stage, but the detailed engineering may take another year.

336. In general, the Mission would find it difficult to question the need for housing, water supply and sewerage. Certainly, all forms of luxury housing should be discouraged as is the purpose of the Plan. Furthermore, public funds should be restricted to modest and high priority requirements, and although the Mission was not in a position to evaluate the program in great detail, it questions whether the size of the original program should be enlarged at this time.

Education and Technical Training

337. For the goal of long-term development of the country, nothing is of higher priority than education. The Pakistan Government is well aware of this problem and has made substantial efforts in the recent years to push the educational programs forward. The First Plan allocated some Rs. 580 million for these purposes but only approximately Rs. 400 million was actually spent and this included recurring expenditures. In many respects, the results during the past five years have been disappointing. There has been no significant improvement in the quality of education, and according to the 1961 census, the literacy rate is still only 11.7% in West Pakistan and 17.6% in East Pakistan.

338. Primary school enrollment did not rise as rapidly as was expected, although secondary school enrollment was substantially higher than at the beginning of the First Plan period. Teacher training programs were expanded considerably at the secondary level, but no increase was registered at the primary level. Technical education was improved noticeably at engineering colleges and technical institutes but the progress was still much below the Plan targets.

Educational Development During First Plan Period

	1954/55	1959/60
Primary Education		
Schools	41,500	44,200
Enrollment	4,266,000	4,706,000
Secondary Education		
Schools	5,475	6,000
Enrollment	869,000	1,099,000
Teacher Training		
Primary Teacher Training Institutes	97	75
Teacher Training Colleges	21	23
Annual Output (Primary Teachers)	7,400	7,400
Annual Output (Secondary Teachers)	1,300	1,800
Engineering Education		
Technical Institutes	7	8
Annual Output (Diplomas)	191	500
Engineering Colleges	4	4
Annual Output (Degrees)	274	400
Medical Education		
Colleges	6	9
Annual Output	350	450
Nurses Training Centers	14	18
Annual Output	150	200
Agricultural Education		
Agricultural Colleges	4	4
Annual Output	120	150
Animal Husbandry Colleges	2	2
Annual Output	32	64
Forestry College	1	1
Annual Output	2	3
Legal Education		
Colleges	8	14
Annual Output	710	800
Non-Professional Colleges		
Colleges	145	209
Enrollment	65,866	110,166
Universities		
Universities	6	6
Enrollment (non-professional)	3,900	7,400

339. The Second Plan provides for public expenditures of Rs. 890 million for educational and technical training. An additional Rs. 100 million has been included for this sector in the recent Plan revisions. It is contemplated that there will be an increase in recurring expenditure of Rs. 508 million during the Plan period. The Plan would raise the proportion of children in the primary 6-11 age group actually attending school from the present figure of 42% to 60% by 1965. About 15,200 new primary

schools are to be opened in West Pakistan and 13,300 in East Pakistan with an increase in enrollment of 1.2 million in West Pakistan and 1.3 million in East Pakistan. Secondary education will also be increased by 430,000 with the share of that age group attending school being raised from 12% in 1960 to 16% in 1965. This plan, if it is carried out, will substantially increase the requirements for teachers. Some 70,000 primary teachers will have to be added to the 127,000 now available. Around 8,625 undergraduate and 6,155 graduate secondary teachers will have to be added to the 50,000 now in the system.

First and Second Plan Allocations to Education and Training
(Including Both Development and Recurring Expenditure)

	First Plan	Second Plan
Primary	105	328
Secondary	155	290
Teacher Training	38	50
Technical	50	182
Colleges	68	55
Universities	87	135
Social & Cultural, Scientific & Industrial Research Technical Training Centers, Scholarships & Other Schemes	77	283
Total	580	1,323

340. A most serious deficiency in the Pakistan economy is that of technically trained personnel from the foreman level through the top-grade engineer. Although the principal impediment to industrial growth in Pakistan today is still probably managerial ability, in almost equally short supply is technically skilled personnel. The Mission believes that the shortage of these people may be a major factor in limiting what can actually be achieved in the next five years. Through existing engineering programs and the establishment of two new technical universities, it is envisaged that the number of new engineers turned out each year will be increased from 400 to more than 700 by 1965. The Second Plan also provides for an expansion of efforts towards increasing on-the-job training as well as the enlargement of five technical training centers and the establishing of four new ones. This program will raise the number of trained personnel from 1,250 in 1960 to 4,190 in 1965. The total that will be trained including those inside the plants throughout the country should reach 7,000 by 1965. The need, however, is substantially in excess of this number according to Planning Commission estimates in the following table:

Estimated Additional Requirements of High Level Technicians and Skilled Craftsmen at the End of the Second Plan

(1) Industry	(2) Engineers, Architects and Surveyors	(3) Chemists, Physicists and Other Physical Scientists	(4) Draftsmen, Science & Engineering Technicians	(5) Skilled Crafts-men
Mining and Quarrying	100	-	(inc. in 2)	1,100
Manufacturing (Large & Medium)	1,200	800	1,400	84,000
Construction	2,000		9,000	40,000
Transport & Communications	500	-	2,000	45,000
Water & Power excluding Indus Basin Replacements	200		400	10,000
Indus Basin Replacements	400		900	21,000
Total	4,400	800	13,700	201,100

Public Health

341. The allocation in the Second Plan for health is Rs. 350 million to cover the capital cost of buildings and equipment, the recurring costs of public health programs, e.g. malaria eradication, programs for public vaccination, family planning, medical research and training. A provision of Rs. 50 million has been included for projected expenditures by the private sector.

Development Expenditure in the Public Sector for Health
1960/61 to 1964/65
(in million rupees)

Malaria Eradication	55.98
TB Hospitals, Clinics & Sanatoria	19.82
BCG Vaccination	8.60
Medical Colleges	21.09
Hospitals	81.29
Dispensaries, Rural Health Centers & Public Health Adm.	52.57
Infectious Diseases Hospitals & Control of Infect. Diseases	16.60
Medical Stores	4.70
Higher Training for Doctors & Research	24.50
Family Planning	30.50
Maternity & Child Welfare Centers	2.61
Training of Nurses and Others	21.87
Nutrition	5.50
Health Education, School Health & Vital Statistics	4.40
Total	350.00

342. The program for the First Plan period was reasonably successful, although considerably more modest in scope. Three new medical colleges were established. Four new nurses training institutes were founded. The number of nurses available was increased from 1,414 in 1955 to 2,000 in 1959, compared to the Plan target of 2,400. The number of Government and registered doctors was increased from 6,000 in 1955 to 9,200 in 1959 as against the target of 9,000. The number of hospital beds was increased from 23,000 in 1955 to 28,000 in 1959 against the target of 32,000. The number of maternity centers was increased from 200 to 375 compared to the Plan target of 256. A substantial increase in the imports of drugs and medicines was achieved. Malaria control was extended to large areas of the country. A substantial quantity of vaccine and serum was produced within the country.

343. The goals in the Second Plan are larger but apparently not unreasonable. There is included Rs. 30.5 million for family planning programs and arrangements are being made for training doctors, nurses, health visitors, midwives and medical administrators in family planning methods. Clinics are to be established in all general hospitals, dispensaries and maternity centers. Furthermore, the Plan includes an allocation of Rs. 42 million to set up 300 rural health centers. To carry on the activities started during the First Plan, Rs. 56 million is included for malaria control and Rs. 28 million for the tuberculosis program. The Plan also provides Rs. 68 million to meet the cost of increasing the number of beds in hospitals by about 8,000. The Mission did not have the opportunity to make a proper study of the Plan in this sector but in general, the targets seem realistic and quite feasible.

STATISTICAL APPENDIX

Table 1: AREA UNDER PRINCIPAL CROPS IN PAKISTAN FOR THE YEARS 1950-51 TO 1960-61

Year beginning 1st July

Crops	50-51	51-52	52-53	53-54	54-55	5-years Average	55-56	56-57	57-58	58-59	59-60	5-years Average	10-years Average	60-61
								In thousand acres						
Rice	22,399	22,484	23,021	24,520	23,705	23,266	21,881	22,456	22,887	22,487	24,125	22,767	22,996	23,588**
Wheat	10,893	10,244	9,530	10,514	10,633	10,363	11,266	11,720	11,495	12,032	12,193	11,741	11,052	10,428*
Bajra	2,404	2,019	2,213	2,583	2,192	2,282	2,203	2,288	1,846	2,003	1,990	2,066	2,174	1,832**
Jowar	1,256	1,121	1,317	1,513	1,126	1,267	1,327	1,358	955	1,097	1,128	1,173	1,220	1,085**
Maize	948	981	980	1,072	1,071	1,010	1,070	1,071	1,072	1,132	1,199	1,109	1,060	1,134**
Barley	511	513	570	602	536	546	539	525	542	550	630	557	552	479*
Total foodgrains	38,411	37,362	37,631	40,804	39,263	38,694	38,286	39,418	38,797	39,301	41,265	39,413	39,054	38,546*
Gram	2,956	2,310	2,234	2,764	3,262	2,705	3,423	3,327	3,134	3,154	2,954	3,198	2,950	2,833*
Total food-crops	41,367	39,672	39,865	43,568	42,525	41,399	41,709	42,745	41,931	42,455	44,219	42,611	42,004	41,379*
Sugarcane	694	704	873	979	1,017	053	967	1,043	1,234	1,301	1,261	1,161	1,007	1,257**
Rape & Mustard	1,628	1,867	1,561	1,581	1,796	1,687	2,010	1,830	1,745	2,047	1,965	1,919	1,803	1,958***
Sesamum	202	206	208	216	212	209	211	214	188	198	218	206	207	122*
Jute	1,711	1,779	1,007	965	1,243	1,521	1,634	1,230	1,563	1,528	1,375	1,466	1,494	1,518***
Cotton	3,071	3,374	3,480	2,928	3,194	3,209	3,529	3,608	3,641	3,324	3,370	3,494	3,352	3,331***
Tea	75	75	73	75	74	74	77	76	76	76	78	77	76	79***
Tobacco	179	184	173	191	242	194	191	181	196	200	205	195	194	n.a.
Total area under crops	48,927	47,861	48,140	50,503	50,303	49,146	50,328	50,927	50,574	51,129	52,691	51,129	50,137	

* First Estimate
** Second Estimate
*** Final Estimate

Source: Ministry of Agriculture

Table 2: PRODUCTION OF PRINCIPAL CROPS IN PAKISTAN FOR THE YEARS 1950-51 TO 1960-61

Crops	50-51	51-52	52-53	53-54	54-55	5-years Average	55-56	56-57	57-58	58-59	59-60	5-years Average	10-years Average	60-61
								In thousand tons						
Rice (cleaned)	8,195	7,753	8,154	9,151	8,415	8,334	7,212	9,016	8,460	7,897	9,461	8,409	8,371	9,847**
Wheat	3,950	2,984	2,391	3,611	3,162	3,220	3,339	3,604	3,530	3,970	3,876	3,644	3,432	n.a.
Bajra	386	265	267	461	348	345	340	363	274	309	324	322	332	321**
Jowar	244	205	220	288	220	235	249	255	183	212	229	226	231	206**
Maize	384	379	349	405	428	389	453	464	442	402	480	464	427	425**
Barley	144	115	108	143	122	126	143	130	169	172	149	153	140	n.a.
Total foodgrains	13,303	11,701	11,489	14,059	12,695	12,649	11,736	13,832	13,058	12,942	14,519	13,218	12,935	
Gram	791	474	369	615	656	581	732	716	688	606	627	674	627	n.a.
Total food-crops	14,094	12,175	11,858	14,674	13,351	13,230	12,468	14,548	13,746	13,548	15,146	13,892	13,562	
Sugarcane (Cane)	8,817	8,780	10,895	12,876	12,454	10,764	12,045	12,717	14,881	16,126	14,105	13,975	12,370	14,570**
Rape & Mustard	285	297	228	263	321	279	324	315	296	373	318	325	302	333***
Sesamum	35	35	36	36	36	36	37	33	27	34	34	33	34	n.a.
Jute a/	6,007	6,331	6,823	3,610	4,662	5,487	5,592	5,514	6,200	6,000	5,554	5,772	5,629	5,626***
Cotton (Lint) a/	1,424	1,415	1,801	1,442	1,600	1,536	1,693	1,725	1,722	1,605	1,657	1,680	1,608	1,723***
Tea b/	37.9	47.1	51.3	52.0	54.0	48.5	52.6	54.7	44.5	53.5	57.0	52.5	50.5	42.0***
Tobacco b/	162.4	178.9	167.1	194.4	280.9	196.7	197.4	192.2	202.3	221.6	198.1	202.3	199.5	n.a.

a/ Thousand bales
b/ Million lbs.

* First Estimate
** Second Estimate
*** Final Estimate

Table 3: MONEY SUPPLY

(in millions of Rs)

Date	Currency in Circulation	Demand Deposits (General)	Other deposits with S.B.P. excluding IMG A/c No. 1	Money Supply
1953				
December	2,371.8	1,151.4	21.0	3,544.2
1954				
June	2,418.4	1,201.8	20.1	3,640.3
December	2,574.6	1,170.4	58.7	3,803.7
1955				
June	2,603.4	1,270.2	29.5	3,903.1
December	2,989.5	1,326.3	53.5	4,369.3
1956				
June	3,052.7	1,431.2	72.6	4,556.5
December	3,464.1	1,429.7	26.9	4,920.7
1957				
June	3,432.1	1,490.1	88.3	5,010.5
December	3,583.1	1,562.1	88.5	5,233.7
1958				
June	3,626.7	1,689.2	46.0	5,361.9
December	3,742.1	1,708.6	51.4	5,502.1
1959				
June	3,646.3	1,869.6	43.9	5,559.8
December	3,844.4	4,871.3	46.2	5,761.9
1960				
March	3,943.9	1,892.2	50.2	5,886.7
June	3,815.0	1,997.1	43.7	5,855.8
July	3,665.9	1,973.8	42.0	5,681.7
August	3,647.7	1,963.9	43.0	5,654.6
September	3,658.8	2,039.1	46.2	5,744.1
October	3,750.3	2,024.6	44.9	5,819.8
November	3,897.7	1,977.6	45.1	5,920.4*
December	4,182.4	1,932.8	47.0	6,162.2*

*Provisional

Source: State Bank of Pakistan

Table 4: CHANGES IN MONEY SUPPLY IN PAKISTAN

(in million Rs)

	1955/56	1956/57	1957/58	1958/59	1959/60	July-December 1959	July-December 1960
Increase in money supply	+ 654.9	+ 454.0	+ 351.4	+ 197.9	+ 296.0	+ 202.1	+ 306.4
Causative factors:							
Expansion (+) Contraction (-)							
1. Domestic private sector	+ 99.5	+ 237.0	+ 41.5	- 04.2	+ 357.5	+ 376.5	+ 468.5
Adjusted for shift to time deposits	- 44.4	- 04.8	- 131.6	- 53.2	- 192.6	- 204.5	- 147.3
	+ 55.1	+ 232.2	- 90.1	- 57.4	+ 164.9	+ 172.0	+ 321.2
2. Government sector	+ 321.5	+ 862.1	+ 715.1	+ 217.3	+ 124.0	- 30.8	+ 183.1
Adjusted for accumulation of counterpart deposits	- 160.4	- 446.1	- 35.8	- 26.8	- 157.9	- 39.0	- 154.9
	+ 161.1	+ 416.0	+ 679.5	+ 190.5	- 33.9	- 69.8	+ 28.2
3. Foreign sector	+ 444.5	- 217.1	- 282.3	+ 121.7	+ 220.2	+ 150.0	- 30.2
4. Other factors	- 05.8	+ 22.9	+ 44.5	- 56.9	- 55.9	- 50.1	- 12.8
Total causative factors	+ 654.9	+ 454.0	+ 351.4	+ 197.9	+ 296.0	+ 202.1	+ 306.4

Source: State Bank of Pakistan

Table 5: GOLD, DOLLAR AND STERLING RESERVES HELD AND CONTROLLED BY STATE BANK OF PAKISTAN

	Period	Rs. million	$ million
1955	March 31	677.1	142.2
	June 30	696.4	146.2
	September 30	1,000.5 a/	211.1
	December 31	1,156.2	242.8
1956	March 31	1,348.1	283.1
	June 30	1,394.7	292.9
	September 30	1,271.3	267.0
	December 31	1,262.9	265.2
1957	March 31	1,257.0	264.0
	June 30	1,200.5	252.1
	September 30	1,028.4	216.0
	December 31	1,021.4	214.5
1958	March 31	956.3	200.8
	June 30	880.5	184.9
	September 30	726.2	152.5
	December 31	765.8	160.8
1959	March 31	908.4	190.8
	June 30	1,043.2	219.1
	September 30	1,121.2	235.5
	December 31	1,227.2	257.7
1960	March 31	1,321.5	277.5
	June 30	1,169.6	245.6
	July 31	1,176.4	247.0
	August 31	1,163.0	244.2
	September 30	1,180.2	247.8
	October 31	1,202.9	252.6
	November 30	1,250.6	264.7
	December 31	1,294.0	271.7
1961	January 31	1,376.1	289.0

a/ The rupee was devalued in August 1955.

Source: Ministry of Finance.

Table 6: FOREIGN AID AND LOAN TRANSACTIONS

(As Recorded in Pakistan's Balance of Payments Statistics)

(Million Dollars)

	1955/56	1956/57	1957/58	1958/59	1959/60
Official					
Donations (net)	78.1	148.3	250.9	138.0	207.7
Loans	21.1	12.0	13.1	13.2	16.6
Principal repayment	-2.2	-7.0	-6.8	-9.3	-8.6
	97.0	153.2	257.1	160.9	215.6
Private					
Direct Investment	1.8	4.5	5.9	2.2	3.0
Donations (net)	-4.5	-2.7	-2.7	-0.4	-1.3
Short term (net)	-2.5	3.1	-1.2	-2.0	-1.4
	-5.1	4.8	2.0	0.3	0.3
Investment Income[a]					
Paid	-13.2	-15.9	-8.0	-9.8	-14.3
Received	6.9	9.3	6.6	5.8	7.3
	-6.3	-6.5	-1.4	-4.1	-7.0

a/ Figures relate to interest and dividends actually remitted and under "Paid" include interest on official loans.

Source: State Bank of Pakistan

Table 7: INDICES OF WHOLESALE PRICES OF SELECTED COMMODITIES

(Base:-April 1948-March 1949=100)

Month/Week	Rice	Wheat	Gram	Jute	Cotton	Wool	Hides	Skins
1952	84.6	110.0	94.6	61.5	111.6	104.7	114.9	70.7
1953	83.4	117.6	114.4	55.7	82.4	142.5	113.0	79.5
1954	67.3	93.7	69.6	64.7	98.6	153.1	122.1	89.8
1955	68.4	83.1	59.7	69.6	95.0	190.7	153.9	99.3
1956	94.4	106.2	103.1	93.5	110.6	220.0	142.2	113.6
1957	96.2	111.8	100.5	97.6	108.7	213.7	149.5	127.4
1958	108.2	108.3	113.9	85.0	95.3	162.6	155.1	125.5
1959	107.6	106.1	116.2	84.6	92.5	173.7	190.0	149.0
1960								
January	98.2	104.4	139.7	95.9	114.4	187.5	221.7	174.0
February	103.1	104.4	140.5	92.2	110.3	186.6	220.4	184.1
March	108.5	104.4	125.6	96.4	108.5	185.2	219.9	196.2
April	111.5	127.3	112.4	100.1	108.7	187.5	219.0	195.0
May	117.0	123.2	114.8	137.8	115.0	188.4	218.2	194.0
June	119.1	124.4	123.0	140.8	111.9	185.8	221.3	170.2
July	114.3	135.0	124.4	118.7	118.0	187.4	230.0	159.7
August	109.7	134.3	121.9	116.2	118.5	182.1	227.5	162.3
September	110.7	134.2	121.4	123.3	112.0	178.0	226.7	143.1
October	107.5	136.8	123.5	177.8	107.3	173.8	228.7	136.9
November	105.0	143.4	128.3	201.5	111.3	180.6	228.5	136.6
December	100.0	151.0	133.0	188.3	120.3	179.2	233.3	138.3

Source: Central Statistical Office

Table 8: CONSUMERS PRICE INDEX FOR GOVERNMENT AND COMMERCIAL EMPLOYEES (CLERICAL IN KARACHI BY EXPENDITURE GROUPS

(Base: 1956=100)

Period	General Index	Food	Clothing and Footwear	Housing and Household	Miscellaneous
1950	90	92	77 a/	91	90
1951	91	94	80 a/	91	92
1952	96	103	79 a/	93	92
1953	98	102	97	95	94
1954	98	100	96	95	96
1955	97	97	93	96	97
1956	100	100	100	100	100
1957	107	109	119	103	100
1958	111	114	130	100	101
1959	106	114	107	97	98
1960	115	125	127	101	99

a/ Excluding Footwear

Table 9: GENERAL COST OF LIVING INDICES FOR INDUSTRIAL WORKERS IN SELECTED CENTRES

(Base: - April, 1948-March, 1949=100)

Year/Month	CENTRES				
	Karachi	Lahore	Sialkot	Khewra	Narayanganj
1949-50 (Average)(Jul-June)	97	90	85	88	101
1950-51 " " "	96	82	78	81	99
1951-52 " " "	100	93	83	94	105
1952-53 " " "	107	99	92	112	109
1953-54 " " "	111	101	92	99	102
1954-55 " " "	107	96	85	98	88
1955-56 " " "	107	94	84	97	105
1956-57 " " "	113	102	94	104	109
1957-58 " " "	123	111	102	107	116
1958-59 " " "	118	103	99	101	117
1959-60 " " "	125	111	108	109	122
1960-61					
July	129	113	118	116	125
August	126	115	118	120	124
September	126	115	117	118	124
October	127	114	117	123	124
November	126	116	118	124	123
December	127	n.a.	n.a.	n.a.	n.a.

Source: Central Statistical Office

Table 16: VOLUME OF EXPORTS BY PRINCIPAL COMMODITIES

Year	Jute (thousand bales)	Jute manufactures (thousand tons)	Cotton (thousand bales)	Wool (million lbs)	Hides (million pieces)	Skins (million pieces)	Tea (million lbs)
1948/49	6,049	-	805	22.55	1.91	7.96	31.29
1949/50	3,459	-	961	25.98	2.60	8.99	30.79
1950/51	6,654	-	1,372	31.33	3.83	11.18	23.62
1951/52	4,885	-	1,095	18.54	1.52	7.16	34.13
1952/53	5,274	1	1,507	29.28	2.00	8.18	24.22
1953/54	5,124	10	1,171	22.23	1.80	8.37	23.33
1954/55	5,142	14	713	24.42	1.28	7.22	26.03
1955/56	5,684	88	948	28.61	1.51	8.87	14.08
1956/57	4,067	73	664	34.62	1.49	9.80	21.03
1957/58	4,880	69	447	27.17	0.52	7.84	8.36
1958/59	4,086	136	461	30.77	1.12	10.69	10.58
1959/60	4,817	203	449	31.03	1.23	11.70	15.76
July-Oct. 1959	1,406	73	67	7.10	1.10	8.30	4.40
July-Oct. 1960	1,142	72	118	7.40	0.10	n.a.	0.50

Source: Central Statistical Office.

Table 11: FOODGRAIN AND SUGAR IMPORTS

(in million dollars)

	52/53	53/54	54/55	55/56	56/57	57/58	58/59	59/60	Estimate 60/61
Own Resources									
Wheat	50.0	4.2	-	-	12.4	13.9	-	5.5	5.6
Rice	-	-	-	.08	26.4	32.9	10.1	22.5	40.5
Sugar	5.1	4.2	4.8	7.4	8.7	.06	-	-	-
Total	55.0	8.4	4.8	7.5	47.5	46.8	10.1	28.1	46.1
Grants and Local Currency									
Wheat	4.8	27.9	-	7.5	53.1	52.7	37.1	63.5	90.4
Rice	-	-	-	5.3	24.4	27.0	6.0	5.9	9.9
Sugar	-	-	1.4	3.4	4.1	6.0	3.8	-	-
Total	4.8	27.9	1.4	16.2	81.5	85.6	46.9	69.4	100.3
Barter									
Rice	-	-	-	-	-	-	-	4.1	-
Loans									
Wheat	10.5	-	-	-	-	-	-	-	-

TABLE 12: PAKISTAN'S BALANCE OF PAYMENTS

(Million Rupees)

	54/55	55/56	56/57	57/58	58/59	59/60	October-December 1959	October-December 1960
Goods and Services								
Exports f.o.b.	+1180.3	+1812.3	+1621.4	+1425.3	+1440.5	+1759.4	+ 490.9	+ 550.4
Imports[a]	- 576.7	- 769.8	- 800.9	- 837.7	- 695.1	-2472.7	- 497.9	- 638.9
Non-monetary gold (net)	+ 0.5	+ 2.0	-	+ 2.0	+ 5.4	+ 12.9	-	-
Foreign travel (net)	- 45.7	- 66.7	- 71.5	- 56.7	- 23.2	- 24.8	- 2.4	- 4.3
Transportation and Insurance (net)	- 69.2	- 62.5	- 87.4	- 84.0	- 73.2	- 132.4	- 31.8	- 47.0
Investment income (net)	- 4.3	- 30.0	- 31.1	- 6.9	- 19.3	- 33.2	- 14.1	- 9.2
Government expenditures n.e.i. (net)[b]	- 458.1	- 881.9	-1597.6	-1954.2	-1329.4	- 23.1	+ 4.7	- 13.2
Miscellaneous (net)	+ 6.5	+ 8.0	+ 4.8	- 5.0	+ 72.8	+ 50.3	+ 12.0	+ 8.1
Total goods and services	- 66.7	+ 11.4	- 962.1	-1517.2	- 621.5	- 864.7	- 38.5	- 154.1
Donations (net)								
Private remittances and transfers	- 24.0	- 21.3	- 13.0	- 12.9	- 0.2	- 6.0	- 0.8	- 2.6
Official donations	+ 100.6	+ 371.7	+ 706.0	+1194.4	+ 656.7	+ 988.7	+ 122.5	+ 197.9
Total donations	+ 76.6	+ 350.4	+ 693.0	+1181.5	+ 656.5	+ 982.7	+ 121.6	+ 195.2
Total current account	+ 9.9	+ 361.8	- 269.1	- 335.7	+ 35.0	+ 118.1	+ 83.1	+ 41.1
Capital and Monetary Gold (net)								
Direct investment	+ 24.1	+ 8.7	+ 21.2	+ 28.3	+ 10.7	+ 14.1	+ 2.3	+ 7.1
Private short terms	- 11.1	- 11.8	+ 14.7	- 5.8	- 9.3	- 6.9	+ 0.3	+ 7.9
Total private capital	+ 13.0	- 3.1	+ 35.9	+ 22.5	+ 1.4	+ 7.1	+ 2.6	+ 15.0
Official loans and long term obligations	+ 65.0	+ 100.6	+ 56.7	+ 62.1	+ 153.5	+ 79.0	+ 8.5	+ 22.8
Contractual repayments	- 9.9	- 10.4	- 33.0	- 32.4	- 44.2	- 41.1	- 11.6	- 12.7
Other long terms	+ 73.1	- 123.1	- 64.2	+ 119.0	- 49.3	- 360.7	-	- 11.3
Short term claims and monetary gold[c]	- 151.1	- 325.8	+ 273.7	+ 164.5	- 96.4	+ 197.5	- 82.6	- 54.7
Total official and monetary gold	- 22.9	- 358.7	+ 233.2	+ 313.2	- 36.4	- 125.3	- 85.7	- 56.0

a/ Private imports only, except for 1959/60.
b/ Includes imports on Government account and under aid, except for 1959/60; and interest payments on official loans to Government.
c/ Including errors and omissions.

Source: State Bank of Pakistan

TABLE 13: REVISED PROJECTIONS OF FOREIGN EXCHANGE EARNINGS SECOND FIVE YEAR PLAN (1960-61 TO 1964-65)

(Rs. million)

	1960-61	61-62	62-63	63-64	64-65	Total 1960-61 to 1964-65
			(Estimates)			
Raw Jute	900	880	800	810	810	4200
Jute Manufactures	300	264	270	310	334	1478
Raw Cotton	170	200	220	240	260	1090
Cotton Manufactures	145	150	175	200	225	895
Tea	1	5	9	12	20	47
Hides and Skins	80	70	70	70	70	360
Wool	73	76	78	78	78	383
Miscellaneous Exports	245	260	285	330	380	1500
Invisible Receipts	250	255	260	265	270	1300
Total Earnings	2164	2160	2167	2315	2447	11253

Source: Planning Commission

TABLE 14: REVISED PROJECTIONS OF NON-DEVELOPMENT IMPORTS DURING THE SECOND PLAN

(Rs. Million)

	1960/61 (Allocation Estimates)	1961/62	1962/63	1963/64	1964/65	Total Revised Estimate Plan Period
1. Consumer goods on private and Government account (excluding foodgrains)	370	350	330	330	320	1,700
2. Raw materials, Fuel and Spare parts on private and Government account.	1,250	1,320	1,373	1,419	1,437	6,799
3. Invisible payments on private account (including loan repayments on private account)	370	390	400	410	430	2,000
4. Debt services and repayment of loans on Government account (IBRD estimates)a/	155	225	235	180	155	950
(a) existing loans				175	325	500
(b) new loans						
5. Other Government non-development expenditureb/ (Defence, F.A.C.R., Government & Semi-Government invisible expenditures and emergent imports)	216c/	215	220	225	230	1,106
6. Foodgrains (purchased from Pakistan's own resources and payments of freight and aid imports)	198	200	150	100	50	698
Total	2,559	2,700	2,708	2,839	2,947	13,753

a/ IBRD estimates for 1960/61 - 1964/65, including repayment and imports on loans guaranteed by the Government.
b/ Part of defence imports, which would be included under 1 and 2, is excluded.
c/ Actual imports probably lower - the authorities assume that there will be some shortfall.

Source: Planning Commission

TABLE 15: LOCAL CURRENCY RESOURCES FOR THE SECOND PLAN AND INDUS WORKS

(Rs. million)

	Original	Revised
Budgetary Resources:		
Revenue surplus	1,500	2,430
Net capital receipt	1,500	1,670
Net taxation	1,000	1,750
Borrowing from banks	1,000	150
Total budgetary resources	5,000	6,000
Commodity Aid Counterpart Funds (net of U.S. uses):		
For budget support	2,500	2,750
For Indus works		
reimbursable items	700	675
non-reimbursable items	-	205
Total counterpart funds	3,200	3,630
Indus Fund Rupee Purchases	400	405
Semi-public sector's own resources	560	600
Private savings	4,440	5,200
Total local currency	13,600	15,835

Source: Planning Commission