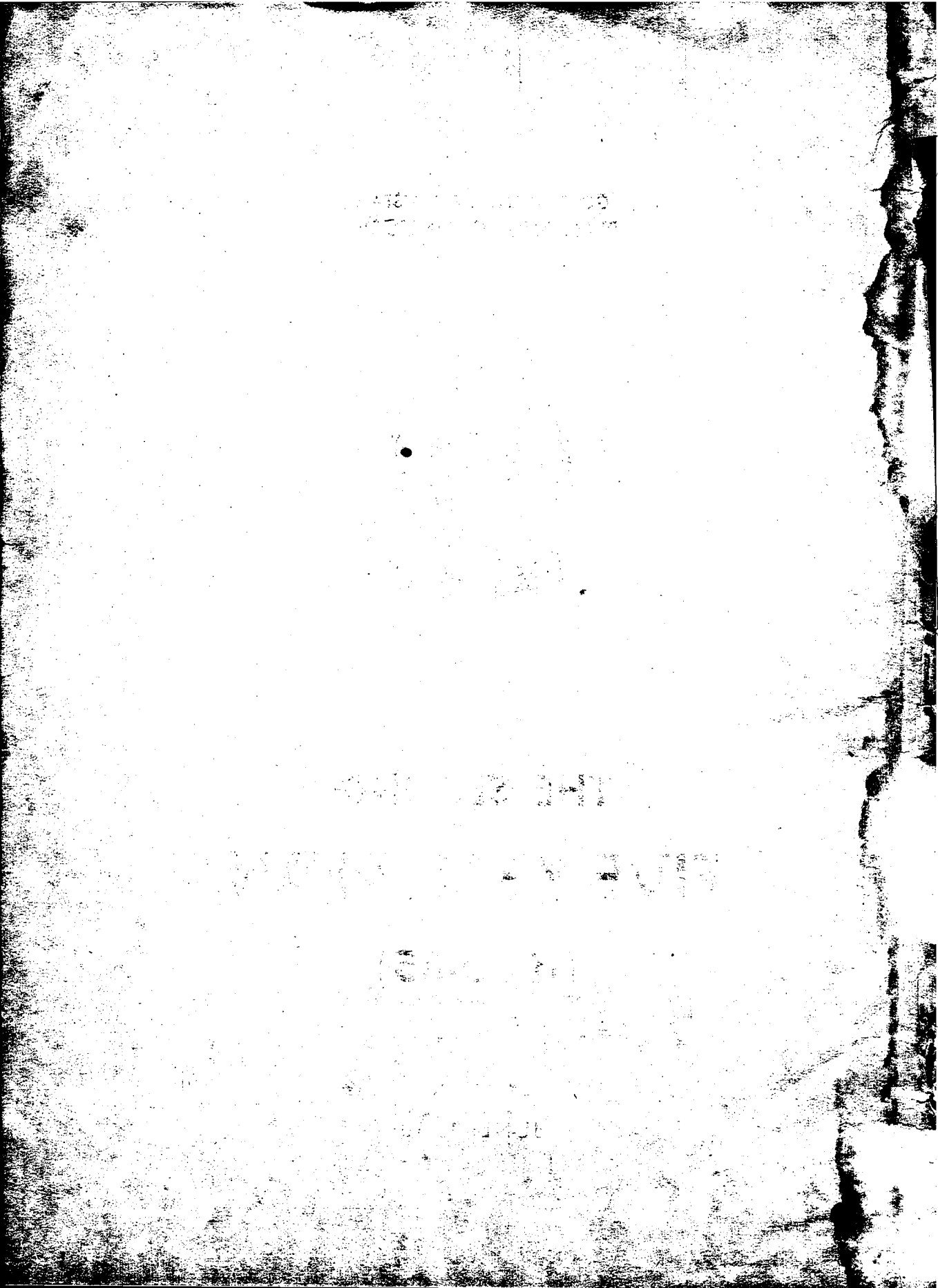


GOVERNMENT OF PAKISTAN
PLANNING COMMISSION



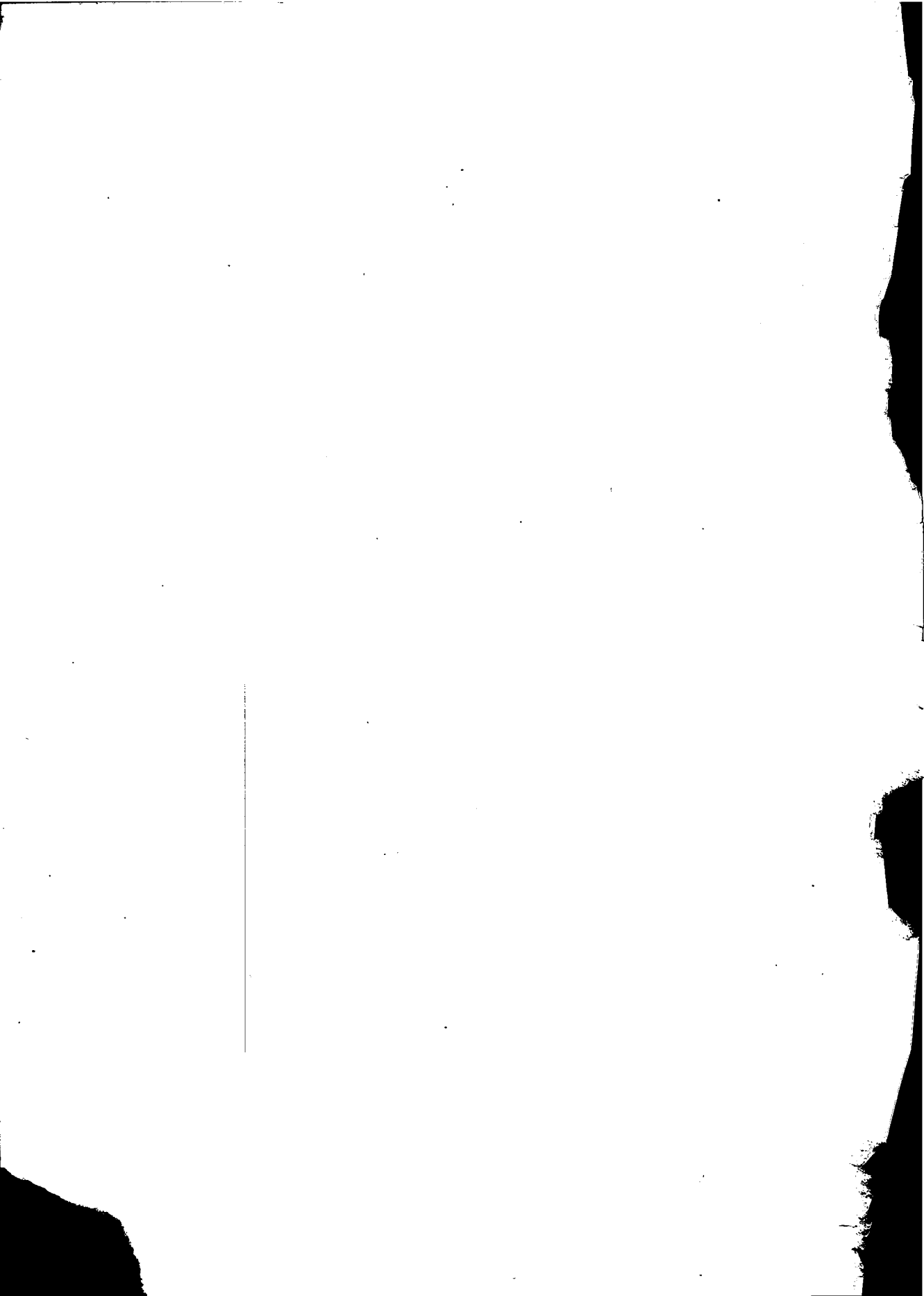
THE SECOND
FIVE YEAR PLAN
(1960-65)

JUNE 1960



THE SECOND FIVE YEAR PLAN

(1960-65)



ON 21 June 1960, the Economic Council of the Government of Pakistan accorded its general approval to the objectives, principles, and programmes of development contained in the Second Five Year Plan. The Council further decided that no major departure from the Plan should be made without the approval of the Economic Committee of the Cabinet and, in matters of fundamental importance, without the approval of the Economic Council.

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EXPLANATIONS

1. The Second Five Year Plan covers the period from July 1960 to June 1965, inclusive.
2. In Pakistan notations are generally expressed in 'lakhs' and 'crores'; in this publication they are expressed in 'millions'. These and other terms are explained below :

Notations

One hundred thousand (100,000)=One lakh (1,00,000)
 One million (1,000,000)=Ten lakhs (10,00,000)
 Ten million (10,000,000)=One crore (1,00,00,000)

Units of measurement

One maund=82-2/7 lbs.
 One bale (cotton)=392 lbs.
 One bale (jute)=400 lbs.

Currency equivalents

One rupee—1sh. 6d.=U.S. \$ 0.21
 One million rupees= Sterling 74,710=U.S. \$ 210,000

Years

Calendar year—1 January to 31 December

Fiscal year

Trade year

Agriculture year

1 July to 30 June

(Example : 1960-61 means the period covering July 1960 to June 1961).

Before 1959-60 the fiscal year was from 1 April to 31 March.

3. In some of the tables in the Plan figures do not necessarily add up to totals because of rounding. "n. a." indicates "data not available".

4. Administrative units :

There are two Provinces, East Pakistan and West Pakistan. For administrative purposes each Province is divided into 'divisions', which are sub-divided into 'districts'. In East Pakistan a district is divided into sub-divisions, circles, *thanas* and villages. In West Pakistan a district is divided into sub-divisions in some cases, *tehsils* (or *talukas*) and villages.

5. Abbreviations :

ADFC	..	..	..	Agricultural Development Finance Corporation
CSO	..	..	..	Central Statistical Office
EBR	..	..	..	Eastern Bengal Railway
HBFC	..	..	..	House Building Finance Corporation
KDA	..	..	..	Karachi Development Authority
NWR	..	..	..	North Western Railway
PIA	..	..	..	Pakistan International Airlines
PICIC	..	..	..	Pakistan Industrial Credit and Investment Corporation
PIDC	..	..	..	Pakistan Industrial Development Corporation
PIFCO	..	..	..	Pakistan Industrial Finance Corporation
SIC	..	..	..	Small Industries Corporation
Village AID	Village Agricultural and Industrial Development
WAPDA	Water and Power Development Authority

EXHIBIT

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PREFACE

THE Planning Commission presents the Second Five Year Plan at a time when there is a perceptible upsurge of enthusiasm in the country, and the national spirit is high. The momentum of the early days of the nation's life has been regained under dynamic and determined leadership, to which the people are responding with remarkable fervency and confidence. The economic progress that was initiated from very small beginnings at Independence has acquired form and direction under the experience of the First Five Year Plan; some important economic infra-structure has been built; managerial and entrepreneurial skills of a fair order have been developed; and the country's ability to undertake and implement development programmes of increasing magnitude has been greatly enhanced. The machinery of administration has been refashioned and reinforced at many points. Specialized commissions have been appointed by the Government to study and make recommendations on crucial aspects of national life, including agriculture, education, medicine and law. Several of these commissions have already reported their findings, and action on their recommendations is well under way. Most importantly, a commission is at present at work to devise a democratic constitution for the country better adapted to the genius of the people. Finally, there is a growing understanding and appreciation of the problems and potentialities of Pakistan among the nations of the world, and a visible determination to assist this country in developing its resources and attaining economic independence.

2. These facts offer hope for the future. Nevertheless, past failures in achieving some of the objectives of the First Five Year Plan must provide cause for sobering reflection. There were several reasons for this failure: political instability, absence of sustained endeavour, lack of imaginative approach to organizational problems requiring urgent solutions, and non-observance of the discipline of the Plan. Yet in explanation it must be remembered that the preparation of the First Plan was not completed until near the middle of the five-year period which it covered, and that it never received formal sanction at the highest levels of the Government, with the result that the vigorous efforts demanded for its implementation were not expended. Furthermore, implementation was hampered by certain uncontrollable factors such as exceptionally unfavourable weather conditions and serious deterioration in the terms of trade resulting in a substantial reduction of the resources available to the country.

3. No doctrinaire assumptions underlie the Plan, and neither an exclusively capitalist nor an exclusively socialist economy is postulated. The approach throughout is pragmatic. The fundamental problem is how under severely limiting conditions, to find some way towards the liberation of the people from the crushing burden of poverty. Viewed in this context, economic growth becomes a necessity for sheer survival. The compelling consideration is that the economy must grow at a rate which must be faster than the increase in population; also, the pace of future growth must be

such as to lead with expedition towards a modernized and self-sustaining economy. The awakening aspirations of the people are exerting strong pressures on the existing economic and social order ; and no underdeveloped country today can afford to fall behind in the race for progress without incurring the very grave risk of internal disruption or external intrusion. Progress must, however, be sought mainly through inducement, less through direction. The creative energies of the people can be best harnessed to the needs of development if policies of economic liberalism are pursued.

4. Specifically, three dominant strains run through the Plan. First, the stubborn problem of agricultural production—low productivity and inability of the country to feed itself—is to be attacked vigorously; the aim is to achieve a break-through in agriculture. Although this objective will strain the organizational ability of the country to the utmost, its achievement should be within the range of possibility if energetic and sustained efforts are made. Second, the aim is to push ahead with industrial development by encouraging private enterprise in all practicable ways and by freeing the economy from superfluous restraints. Public policies to this end are recommended in the Plan. Controls which have a strangulating effect on private initiative will need to be relaxed, and replaced progressively by fiscal and monetary measures and operation of the market mechanism. And third, education at all levels is to be expanded and advanced as fast as the required institutions and personnel can be provided.

5. Development expenditures in the Second Plan are 65 per cent larger than in the First, though in real terms the increase is smaller. It must be emphasized that the resources required for the implementation of the Plan are not fully in sight. The Plan is based on a dynamic rather than a static approach to resource mobilization. The implementation of the Plan itself will generate a substantial part of the required domestic resources, but very determined efforts will still be needed to increase these resources. The Plan depends heavily on foreign aid and foreign investment. There is emphasis on increased production of exportable goods and substitutes for imports, which should have the effect of reducing dependence on foreign aid in the long run. Conditions for attracting foreign capital to Pakistan are becoming increasingly favourable. Very substantial increase in external assistance will, however, be called for if the requirements of the Plan are to be properly met. The full mobilization of internal and external resources, therefore, will be of critical importance to the implementation of the Plan. To the extent that these resources become available, the Plan will succeed.

6. The urgency of accelerating the process of growth necessitates a considerable concentration on investments which produce early results. Nevertheless, in a number of ways the Plan represents investment in the future, with benefits maturing over a period of time. This is notably true of investments in water and power development projects, in education and research and in measures to regulate population growth. The supply of material goods that can be made available to the people cannot, regrettably, increase

very substantially in the Plan period without sacrifice of investments in development programmes on which future growth depends. A fair increase in goods of mass consumption should, however, occur: more food, more cloth, and some increase in certain manufactured goods. The housing difficulties will be eased, but not much. The citizen will have more of what is more valuable: improved education and improved health. Opportunities for employment will increase. Greater activity in agriculture and industry, particularly small scale industry, should have the effect of bringing about a greater diffusion of incomes.

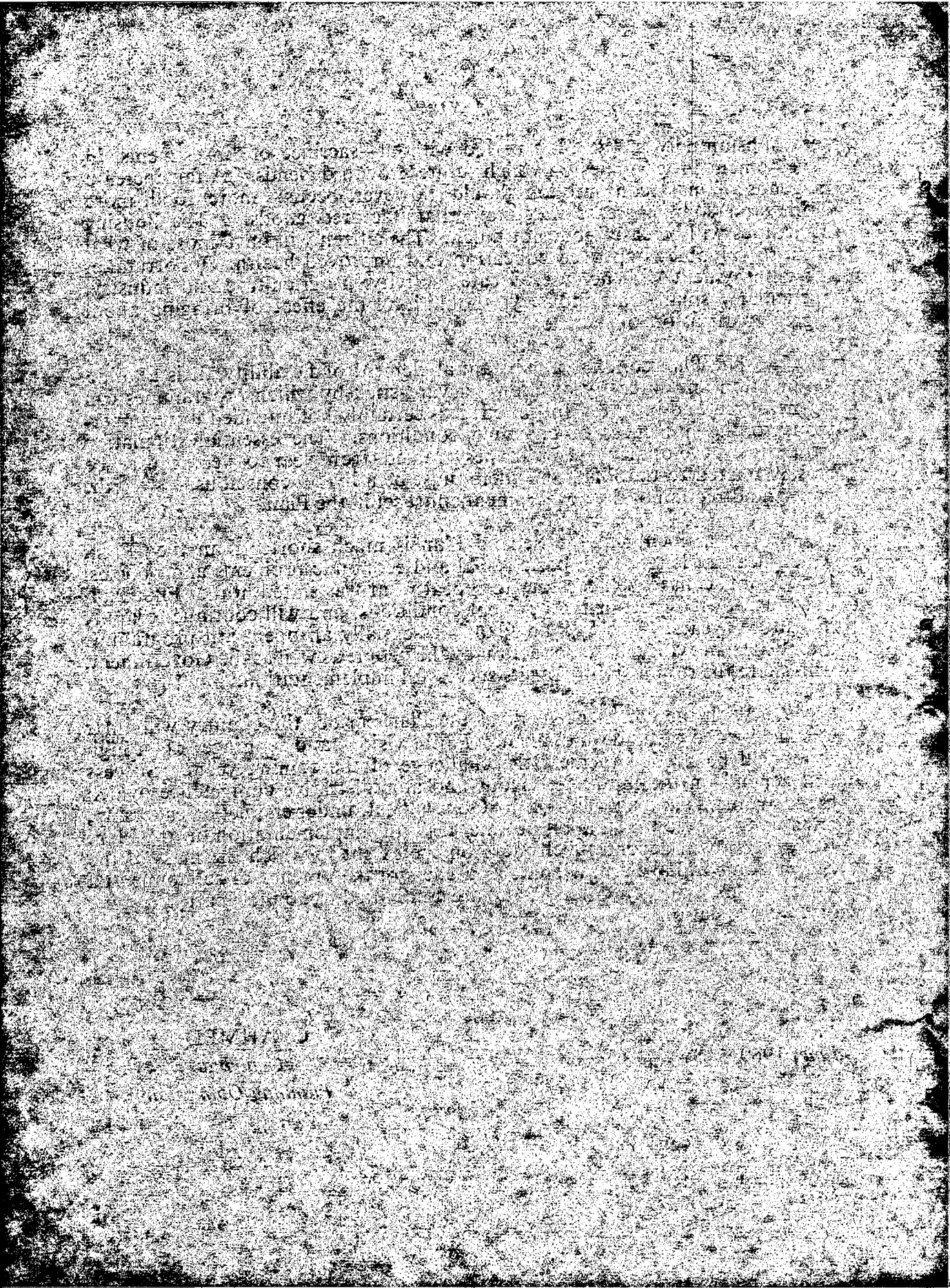
7. The Plan contains a substantial element of flexibility. It is a guide to direction and intensity of effort, a yard-stick by which programmes can be measured and progress appraised; it is certainly not intended to be impervious to the influences of changing conditions. The essential stipulation is that the development programmes framed from year to year must be closely related to the Plan, and there must be a lively consciousness of the pace and direction of the development effort set in the Plan.

8. As a document the Second Plan is much shorter than the First, which dealt at length with basic social and economic problems and policies. It does not seem to be necessary to repeat what was stated in the First Plan but much of it is pertinent to present conditions, and will continue to apply in future years. The Second Plan is essentially an operation programme intended to provide a basis for action by the people as well as the Government, who share the responsibility for its successful implementation.

9. With the commencement of the Plan period, the country will enter a critical stage of its development. Faith, vision and courage of a high order will be needed to meet the challenge of the coming years. Success will depend on the initiative, vigour and administrative competence which the instruments and agencies of the Government, under energetic leadership, are able to develop and apply to the task of implementation of the Plan. But success will depend much more on the extent to which the mass of the people come to have a passionate awareness of the urgency of economic and social progress of their country, and are committed to do their part in a spirit of high dedication.

June, 1960

G. AHMED,
Chairman,
Planning Commission.



PART I
THE PLAN AND ITS IMPLEMENTATION

PART I

THE PLAN AND ITS IMPLEMENTATION

CHAPTER 1

BACKGROUND, CHARACTERISTICS AND SIZE OF THE PLAN

THE economic and social objectives of Pakistan are long-range goals. These objectives were stated in the First Five-Year Plan and are restated in the Second. The nation aspires to a standard of living for all its people as high as can be achieved with the resources available to it; equitable distribution of wealth; education of all in accordance with their talents; victory over disease; adequate facilities for transport and communications so that the nation may be effectively unified economically and socially; and evolution of the national culture in literature, art and science. The Second Five-Year Plan may be said to have a single underlying purpose: to advance the country as far as possible, within the next five years, along the road of these long-range objectives. With the termination of the First Plan period, the initial phase of development will come to an end, and the weaknesses which appeared in the economy soon after Independence will largely be made good. The next phase of development begins with the commencement of the Second Plan period. While many of the features of the First Plan will continue to be reflected in the Second, new demands will be made upon the economy which will require redirection of effort in days to come.

Review of the First Five-Year Plan

2. The First Five-Year Plan was a comprehensive and coordinated attempt to harness human effort and physical resources to the maximum extent possible in order to raise the living standards of the people and to open up opportunities for a richer and more varied life. It was designed to prepare the ground for rapid growth by building up the infra-structure and productive potential of the economy. It aimed at increasing national income by 15 per cent. This was to be achieved through substantial increase in agricultural and industrial production, and through the provision of irrigation, power, transport and other facilities required for production. The dimensions of the Plan were modest. It envisaged an expenditure of Rs. 10,800 million: Rs. 7,500 million* in the public sector and Rs. 3,300 million in the private sector.

3. The Plan did not receive formal approval of the Government until 1957, and never received full support till the present Government came into power. Nevertheless, the country registered important economic advances and Plan targets were reached in a number of sectors, notably in industry and power development. Various organizational and institutional improvements were effected. In particular, there was unmistakable progress in the evolution of planning machinery within the Government and in public recognition of the importance of planning and development.

*All First Plan allocations quoted in Part I of the Second Plan are after estimated shortfall, i.e., 20 per cent less than sector allocations in the First Plan. In Parts II and III, sector allocations are indicated without shortfall.

4. The financial resources available for development purposes in the public sector during the Plan period fell short of expectations. The total non-development expenditure of the Government exceeded its revenue receipts by Rs. 280 million, against a surplus of Rs. 1,000 million looked for in the Plan. All the excess non-development expenditure over revenue occurred in the first three years of the Plan; in the last two years, public savings were positive. Foreign exchange earnings from exports fell short of Plan projections by about Rs. 946 million, because both the volume and prices of the country's chief exports of primary commodities declined sharply during the Plan period. Imports, on the other hand, were about Rs. 2,165 million less than expected. Because of the sharp increase in import prices the shortfall in real terms was substantially larger. Cutbacks were particularly severe in imports of development goods and allocations to the private sector; serious shortages of imported raw materials and consumer goods were also experienced. Arrivals of project and commodity aid (excluding food) were also about Rs. 823 million less than expected, due largely to procedural and administrative delays in commitments and utilization of foreign aid.

5. A disappointing feature of implementation of the Plan was the failure in the key sector of agriculture. The result was that extensive imports of foodgrains became necessary; and the country spent about Rs. 700 million of its foreign exchange earnings on imported foodgrains and on the freight paid on the foodgrains received as aid, compared with Rs. 410 million provided in the Plan. Industrial production showed good growth as compared with the Plan targets, notably in cotton textiles and sugar. The performance of industry was especially impressive because it was achieved with considerably less new investment than had been anticipated. In the fuels and minerals sector, increases in output were low except in the case of natural gas, which showed substantial growth. The increase in installed electric power was close to expectations. The water development programme fell considerably behind schedule, and the acreage reclaimed from waterlogging and salinity was below the Plan objectives. Investment in railway transport, roads, ports, civil aviation, and expansion of telegraphs, telephone, and postal facilities, was up to or above the Plan targets in most cases. Substantial increases in traffic accompanied these additions and improvements. Performance was, however, poor in the development of inland water transport and roads in East Pakistan. In the field of social development moderate progress was realized. Housing received a strong stimulus only in the last two years of the Plan; and medical, hospital and social service facilities showed only modest improvement. Education made some perceptible progress though less than was expected. Primary school enrolment increased by about 10 per cent, a little ahead of population growth; secondary school enrolment rose by 25 per cent; and the out-turn of agricultural, engineering and medical personnel increased by 30 to 150 per cent.

6. Shortfalls in implementation of the Plan were due to several causes. Non-development expenditures exceeded expectations; earnings of foreign

exchange fell considerably short of the Plan projections; and arrivals of foreign aid were slower than expected. A considerable rise took place in both internal and external prices, upsetting the cost calculations included in the Plan. Adverse factors beyond the control of public policy and human effort, particularly unfavourable weather and the deterioration in the terms of trade, were exceptionally serious. Many projects took longer to complete than was expected, due chiefly to deficient advance planning, shortages of key personnel, equipment and materials, and ineffective coordination between government agencies. Above all, there was failure to observe the discipline of the Plan.

7. It appears that in financial terms the Plan target will be fulfilled to the extent of about 90 per cent. The total development expenditure during the Plan period is estimated at Rs. 9,715 million: Rs. 6,315 million in the public sector and Rs. 3,400 million in the private sector. The Plan target in the private sector will be surpassed; but the target, it now seems, was based on an underestimation of the pre-Plan level of investment, so that the net increase in private investment during the Plan period will be inconsiderable. Against the Plan expectation of 15 per cent increase in national income, the actual achievement will be of the order of 11 per cent. Because of the increase in population, however, the rise in *per capita* income is unlikely to exceed 3 per cent, compared with the increase of 7 per cent envisaged in the Plan.

8. In general terms the conclusion to be drawn from the experience of the First Plan is that while progress has been a good deal less than was hoped, there has been a significant improvement in the climate for economic growth, making accelerated development possible during the Second Plan period. Conditions are now ripe for taking a decisive step forward in the advance towards a self-reliant and self-sustaining economy.

Current situation

9. While, despite the progress made in the First Plan period, the country is still in a serious state of underdevelopment, the possibilities for future growth of the economy are very considerable. The country has some excellent natural resources, and the people are hardy and willing to learn. Many conditions favourable to development have been created in the past few years: social overheads have been built; external economies from past investment are emerging; new development organizations have been created; and the out-turn of technical personnel is increasing. Given political stability and sound leadership, there are good prospects of economic progress at an accelerated pace. The path, however, will be long and hard.

10. Shortage of foreign exchange has been, and continues to be, a serious impediment to development. To increase export earnings, various devices, including an export bonus scheme, have been launched in recent months. As a result, there has been a remarkable increase in export earnings.

During 1959, for instance, the value of exports of commodities falling under the export bonus scheme rose to Rs. 570 million, as against Rs. 215 million during 1958.

11. The balance of payments position also has shown a great improvement after 1957-58. As against a deficit of Rs. 266 million in 1956-57 and of Rs. 336 million in 1957-58, there was a current account surplus of Rs. 35 million in 1958-59 and further improvement in 1959-60. Gold, dollar and sterling reserves stood at about Rs. 1,300 million in March 1960, compared with Rs. 880 million in June 1958. Recent improvement in the balance of payments, however, has been due as much to restriction of imports as to recovery of exports; and the increase in reserves was partly the result of extraordinary surrenders of illegal private holdings abroad.

12. On the agricultural front, a fundamental change was introduced in West Pakistan with the enforcement of land reforms of a far-reaching character. Also, during the last few months, important changes were made in foodgrain policies to encourage greater production. Free domestic trading in wheat was permitted throughout West Pakistan; and in East Pakistan, rationing of rice was abolished in most urban centres, and government procurement was made voluntary. These arrangements do not apply to border areas.

13. Important administrative, legal, educational and medical reforms have either been introduced by the present Government, or are presently under its urgent consideration. With the creation of institutions of Basic Democracies, the foundations have been laid of a stable system of democratic government. The concept of Basic Democracies, as an instrument for the promotion of development policies, is of special significance in the context of implementation of development plans. The nation, under dynamic leadership, is now ready to press forward.

Characteristics of the Second Plan

14. During the First Plan period, productive processes of crucial significance were set in motion and development activity attained a certain momentum. The Second Plan will endeavour to speed up the pace of development, to overcome the inadequacies of achievement during the First Plan period, and to ensure that the stage of self-generating growth is reached within a measurable period of time. The Second Plan has, therefore, to be viewed in the broad perspective of long-term growth of the economy. It is proposed to double the existing level of national income in the Fourth Plan period and to quadruple it in the Sixth Plan period. Adherence to this growth pattern necessitates a rate of growth of 20 per cent during the Second Plan period, rising to 25 per cent during the Third Plan period and 30 per cent during the Fourth and Fifth Plan periods. The Second Plan, accordingly, aims at increasing national income by 20 per cent. In view of the anticipated increase in population of about 9 per cent, this will mean an increase of about

10 per cent *in per capita* income. If a self-generating economy is to be achieved within a reasonable time, the proposed increase in national income is the minimum required during the Second Plan period.

15. It now appears that the growth of population has been higher than that postulated in the First Plan. As against the rate of growth of 1.4 per cent then assumed it is estimated that the rate will reach about 1.6 per cent by the end of the First Plan period and may rise to around 1.8 per cent by 1965. Partly, the increase in population is the result of improved health measures taken during recent years. The investment dimensions of the Second Plan clearly should be on a scale calculated not only to prevent a deterioration in the current low living standards of a growing population but also to improve them. An annual 2 per cent improvement in *per capita* income proposed in the Plan must, therefore, be regarded as the minimum increase in facilities and opportunities required for the country's growing population. A part of the additional income should be channelled into savings and investment and a part should go towards improving the living standards of the people.

16. The highest priority is attached to increasing agricultural production. It is stipulated that the present gap in food supply should be closed and foodgrains production raised to the level of self-sufficiency. This will require a major effort. Effective agricultural programmes and administrative policies to execute the programmes will have to be devised ; increased provision and utilization of fertilizers, pesticides and other aids to agriculture will have to be undertaken ; consumption will have to be held at a reasonable level ; and about 9.5 million acres of land will have to be provided with new or improved irrigation, drainage, flood control or reclamation facilities. An overall increase of 14 per cent in agricultural output is projected.

17. A substantial increase is proposed in industrial production : the value added in production is projected to rise by 60 per cent in large and medium scale industry, and by 25 per cent in cottage and small scale industry. Provision is made for optimum utilization of existing capacity and substantial additional investments for its balancing and modernization. New capacity is to be established where it demonstrably and substantially earns or saves foreign exchange or is based in the main on the use of indigenous raw materials. Basic industries are to be encouraged where economically feasible. Special emphasis is placed on the development of small scale industries, both because of their intrinsic merits and because of their employment potential. In particular, those major industries are to be encouraged which stimulate agricultural development or which support small scale industries. Private investment in industry is to be given maximum encouragement.

18. Increases in agricultural and industrial production will require further development of water and power resources, transportation, and communications. In particular, it is necessary that transport keep abreast of increasing development requirements. Large investments will be needed

for the rapid completion of on-going projects as well as for undertaking selected new schemes. The Plan aims at ensuring that deficiencies in these basic services do not jeopardize achievement of production and income targets.

19. On the Plan's assumption of population increase, some 2.5 million persons are expected to enter the labour market during the period of the Second Plan. The scale and content of the development effort has to be geared to generate sufficient job opportunities for the new entrants to the working force. In addition, there will be a backlog of unemployment existing at the beginning of the Plan. To provide for the addition to the labour force, and also to cover the backlog at least partially, it is proposed to create the maximum possible employment. It will be difficult to absorb all available workers with the capital investment proposed for the Plan, but the objective may be reached through employment of labour-intensive schemes and technologies.

20. The Plan aims at narrowing the present gap between foreign exchange earnings and the essential non-development import requirements of the country. The attainment of this objective will require much effort. In particular, agricultural and industrial output will have to be stepped up with a view to increasing the production of exportable goods and of import substitutes. Improvement in the balance of payments position has been the principal consideration in determining the various production targets set in the Plan.

21. The Plan endeavours to accelerate economic growth of relatively less developed areas in East and West Pakistan. Special attention is given to creation of the economic and social overheads which are a pre-condition of development, and appreciable increase is planned in the *per capita* income of the less developed areas.

22. The development of human resources suffered much neglect during the First Plan period. Measures are suggested in the Second Plan to make up some of the deficiencies. Education is accorded a high priority. Institutional facilities are to be expanded, and emphasis laid on technical and vocational education, particularly to meet requirements of the Plan. A nationally coordinated programme for the training and use of manpower is to be undertaken. Health and social service facilities are to be reorganized and expanded. Consideration is also given to improvement in the living and working conditions of the workers, and to provision of a measure of social security. Housing facilities, particularly for lower-income groups, are to be extended, although it will not be possible to eliminate the housing shortage in the near future. Finally, a provision is made in the Plan for organizing a programme of family planning. Hitherto, the fruits of economic development have been almost completely absorbed in maintaining an increasing population. The present menacing growth of population must be arrested.

Strategy of the Plan

23. Priorities for the allocation of resources for development have been determined on the basis of objectives to be achieved during the Plan period. The crucial objective is to attain an increase in national income of 20 per cent, while at the same time building up the potential for future growth. High yields on investment are attainable in agriculture and industry, and much of the development effort is accordingly directed to these sectors. Irrigation, drainage, flood control and power facilities required for increasing production in agriculture and industry have set the targets for the development of water and power resources. The transport facilities required in support of the agricultural and industrial programmes have determined the targets for the development of railways, highways, inland waterways, ports, shipping and civil aviation. The technical personnel requirements for the implementation of the various sector programmes have set the targets for the training programme.

24. Self-sufficiency in food, improvement in the balance of payments, acceleration of the rate of economic growth of relatively less developed areas and increase in employment opportunities are other important objectives of the Plan. These objectives have also been taken into account in determining the agricultural and industrial programmes. Attainment of food self-sufficiency is an essential feature of the programme for increased agricultural production. Improvement in the balance of payments position requires that additional production be concentrated to the maximum extent possible, on exportable goods or import substitutes, so that it should result either in an increase in foreign exchange earnings or in a saving of foreign exchange expenditure. In the programme for agriculture, the Plan provides for a substantial increase in the production of cotton, jute and tea, which are important foreign exchange earners. Increased production of foodgrains will save foreign exchange expenditure on food imports, which has averaged Rs. 470 million a year during the First Plan period. The development of industries such as cotton textiles, jute goods, paper, newsprint, sugar, cigarettes, fertilizers, chemicals, cement, natural gas and coal mining, as a part of the industrial programme, is designed to earn or to save foreign exchange. Accelerated development of relatively less developed areas requires that production facilities be located in these areas as far as possible, without seriously affecting the national production targets. The objective of increasing employment opportunities requires concentration on labour-intensive, rather than capital-intensive, techniques of production, which need not necessarily affect the total volume of production. Given these objectives, the allocation of priorities is, by and large, a problem of ensuring the consistency of the various sector programmes. Priorities of the programmes for housing, education, health and social welfare have been determined on the basis of general social considerations.

25. Within the development programmes of the various sectors, aided projects and on-going projects which have reached an advanced stage of implementation are, for obvious reasons, given a high priority.

26. Second, the emphasis of the Plan on increasing production rapidly, with the limited resources that are available for development, means that

priority must be given to expenditures which produce results as quickly as possible. The Plan seeks to obtain quick results through better utilization of existing resources and productive capacity. The major thrust in agriculture is to increase crop yields; in industry, capacity is to be augmented primarily by modernization, balancing and expansion of existing units rather than by establishing new plants. Emphasis on obtaining quick results will not, however, lead to a neglect of programmes which have long-range benefits. Particularly in the sphere of water, power and transport, work must begin during the next five years on projects which will be needed to satisfy requirements of the Third and subsequent Plan periods. Priority has also been given to education and training, the full effects of which will be realized only in the more distant future. Great importance is attached to surveys and research in the Plan in order to gain better understanding of problems to assure their more effective solution.

27. Third, the Plan places greater reliance on the market mechanism and fiscal and monetary policies, instead of on direct price, profit and allocation controls, which subsidize consumption and discourage production so that over the longer run, economic development is adversely affected. Where it is necessary to retain controls, their rationalization and simplification will be necessary. Controls which restrict imports must be continued, but the form of controls may be modified and heavier reliance placed on market forces.

28. Fourth, in regard to the respective roles of the public and private sectors, a pragmatic approach has been followed in the Plan. No industries are reserved for the public sector; public investment is provided only in those activities which are not ordinarily developed with private capital or where, on present indications, private investment will not be forthcoming. Disabilities of the private investor are now being steadily removed. Indigenous and foreign private capital will receive positive encouragement.

29. Fifth, the Plan aims at economizing on the use of capital in development projects and to assure as rapid a turnover of capital as possible. The high priority assigned to agricultural development and the attention given to small scale industry are evidence of application of this strategy. Where projects with relatively high capital-output ratio and long gestation periods have been included in the Plan, these have been scrutinized with particular care from the standpoint of economic use of resources. Even so, development expenditures in the capital-intensive sectors of water, power, transport and communications account for over half of the total public sector programme, because the services provided by these sectors are indispensable for producing and moving agricultural and industrial output. Wherever possible, use is to be made of less capital-intensive techniques in the execution of development works. In practice, however, it has often been found that losses due to poor quality and slowness of manual effort offset the higher capital cost of machine methods. Similar problems have been encountered in other sectors, e.g., industry and mining, which are relatively heavy users of capital. Nevertheless, the principle should be that capital must be conserved and labour substituted wherever possible in the execution of

development projects. There is ample opportunity, in any case, for strict enforcement of this principle in a large number of projects relating to irrigation and drainage, house construction and repairs, road building, and civil works generally. There is no doubt whatever of the paramount importance of setting to work the vast manpower available in the country.

30. Sixth, a delicate problem of balance is involved in the decision as to what share of production of goods and services should go to improve current living standards, and what share be withheld to build up the nation's capital stock. Some authoritarian countries have not hesitated to suppress consumption ruthlessly. Their rapid growth has posed a challenge to those nations trying to develop while governed by popular consent. The Plan proposes to raise domestic savings from an average of 6 per cent of gross national product in the First Plan to 7.8 per cent in the Second. To do this it will be necessary to save one-fourth of the increase in *per capita* income. This should not place an intolerable burden on the community.

31. Finally, while the broad priorities established in the Plan will be maintained, a substantial element of flexibility has been built into the Plan. Alterations may be induced in the Plan by changing social and economic conditions ; by unexpected expansion, or contraction of resources ; by emergence of ideas or facts calling for better programmes or improved techniques ; or by success or failures in Plan implementation. To meet such situations, the Plan must remain flexible. The annual development programme, as reflected in the budgets of the Central and Provincial Governments, has become a well-established instrument for the review of resources and programmes. This instrument will be used to full effect.

Size of the Plan

32. After taking into account the objectives and strategy of the Plan, the availability of resources and the problems of technical and administrative feasibility, the programme included in the Second Plan is estimated to cost Rs. 19,000 million. Of this amount Rs. 9,750 million will be in the public sector, Rs. 3,250 million in the semi-public sector, and Rs. 6,000 million in the private sector.

33. A new classification, designated the " semi-public sector ", has been introduced in the Second Plan. Corporations financed by government loans and grants are also in some cases financed by private contributions, and frequently have resources of their own which they use. Also, they differ from public sector agencies in that they enjoy a much greater degree of administrative autonomy. They should, therefore, be properly classified as semi-public sector. The government-sponsored organizations included in this classification are :

Central agencies.—Pakistan Industrial Development Corporation, Small Industries Corporation, Karachi Port Trust, Chittagong Port Trust, Pakistan International Airlines, Karachi Road Transport Corporation, Karachi Electric Supply Corporation, and Karachi Development Authority.

East Pakistan agencies.—Inland Water Transport Authority, the proposed East Pakistan Road Transport Corporation, East Pakistan Small Industries Corporation, and Improvement Trusts in Dacca and Chittagong.

West Pakistan agencies.—West Pakistan Road Transport Board, West Pakistan Small Industries Corporation, and Improvement Trusts in Lahore and other cities.

The Water and Power Development Authorities in East and West Pakistan which share some of the characteristics of the above corporations but are engaged in activities reserved essentially for government departments are not included in the semi-public category.

34. The concept of "development expenditure" used in the Second Plan differs in some significant respects from that used in the First Plan. Development expenditure, as defined in the First Plan, covered not only gross fixed investment, but also the recurring and non-recurring costs of all new schemes in the fields of education, health, Village AID and other social services. Development expenditure, as the term has been used in the Second Plan, does not include the recurring costs of schemes in the public sector, except recurring expenditure on popularizing, distributing and subsidizing fertilizers; salaries of agricultural extension workers engaged on schemes specifically included in the Plan; Village AID and community development schemes; technical, industrial, agricultural, and social research related to specific Plan schemes; family planning; scholarships; and malaria control. All other recurring costs are classified as non-developmental, to be met by the Government from resources set aside for non-development purposes. On the other hand, development expenditure incurred by the local bodies, which was omitted from the First Plan, has been included in the public sector in the Second Plan. The construction of the new federal and subsidiary Capitals has been included in the development programme. This is consistent with the First Plan, which made provision for construction of government offices and residential buildings. Expenditure on the Indus Basin replacement works has not been included in the Plan. These works are not primarily developmental, nor are they a part of normal replacement of capital; and their financing is to be covered by foreign assistance and resources specifically earmarked for this purpose. Account has, however, been taken in the Plan of the financial and physical impact of these works on the economy to the extent that information has been available. Further studies in this connection will be undertaken as soon as an agreement on the canal waters dispute is finalized.

35. The designation of certain expenditures as developmental does not mean that other outlays are not essential for implementation of the Plan. Recurring outlays by the nation-building departments which are implicit in the development programme are no less important than development expenditure on the construction of new buildings and other physical assets. The nature of these development supporting expenditures and an estimate of their total amount are indicated in the relevant chapters of the Plan, so that adequate provision can be made for them in the Government budget.

36. The definition of private sector development expenditure now includes that part of private investment in agriculture which contributes to recoveries in the public sector programmes, namely payments for fertilizer, improved seeds, plant protection, mechanization and colonization. As in the First Plan, other agricultural and non-monetary investment, rural housing, commercial inventories, and a few other types of investment are excluded from planned development outlays.

37. The Second Plan does not make any provision for shortfalls in public sector outlays as was done in the First Plan. Programmed expenditures equal resources expected to be available for development. Shortfalls, if they occur at all, will be handled in the annual budgets, and by appropriate revisions of the Plan in accordance with public policy.

Comparison of the First and Second Plans

38. Proposed development expenditure in the Second Plan is approximately 70 per cent larger than in the First. In real terms, however, the increase is closer to 50 per cent because the price level on which the Second Plan is based is higher than that which prevailed when the First Plan was drawn up. The cost of the Second Plan is generally calculated in terms of 1959 prices and on the basis of estimates of various projects as prepared by the sponsoring authorities concerned. It is, however, possible that the cost estimates of some of the projects may have to be revised.

TABLE I

Planned development expenditure under First and Second Plans

	First Plan		Second Plan
	Unadjusted	Adjusted*	
Public Sector			9,750
Semi-public sector	7,500	7,150	11,500
From government contributions			1,750
From own and other resources	3,300	4,000	1,500
Private sector			6,000
Total ..	10,800	11,150	19,000

39. Rapid acceleration in development expenditure will be required to implement the Plan in both public and private sectors. Investment will need to rise from about 10.5 per cent of gross national product in 1959-60 to 15.4 per cent in 1964-65. The acceleration in the rate of private investment will be particularly rapid.

*First Plan figures are adjusted to the definition of development expenditure in the Second Plan. In the public sector, recurring costs have been excluded and expenditure by local bodies included. In the private sector, that part of the private investment in agriculture which contributes to recoveries in the public sector, self-financing by public corporations, and investment in other sectors like education and health has been included.

40. The breakdown of the Plan development programme by major sectors is shown in Table 2. As in Table 1, the allocation for the semi-public sector is divided into two parts in order to facilitate comparison with the First Plan.

TABLE 2
Second Plan development programme

(Million Rupees)

	Public sector	Semi-public sector		Private sector	Total
		Contribution from Government	From own resources, private investment and loans		
Agriculture	1,660	—	—	880	2,540
Water and power ..	3,140	—	190	60	3,390
Industry	125	1,045	500	2,380	4,050
Fuels and minerals ..	125	175	—	550	850
Transport and communications	1,990	110	420	830	3,350
Housing and settlements	895	420	390	1,135	2,840
Education and training	890	—	—	100	990
Health	350	—	—	50	400
Manpower and social service	95	—	—	15	110
Village AID	480	—	—	—	480
Total	9,750	1,750	1,500	6,000	19,000

Note :—The sum of the first two columns (Rs. 11,500 million) corresponds to the “public sector” and the sum of the next two columns (Rs. 7,500 million) to the “private sector” as presented in the Outline of the Second Plan.

41. There are some significant changes in the composition of the government-financed programme between the First and Second Plans. All allocations in the Second Plan are substantially higher in absolute terms, but the relative share of industry in the total has been reduced from 15 to 10 per cent, and that of water and power from 29 to 27 per cent. The relative share of agriculture, on the other hand, has been increased from 13 to 15 per cent, and of education and training from 6 to 8 per cent. The relative shares of the other sectors are approximately the same as in the First Plan.

42. The Second Plan allocations may also be compared with estimated actual expenditure during the First Plan. The planned acceleration in development outlays in agriculture shows an increase of 150 per cent over actual First Plan expenditure ; in education and training, an increase of 280 per cent ; and in health, manpower and social service, an increase of 370 per cent. These large increases over First Plan outlays are partly the result of shortfalls in the implementation of First Plan programmes. Implementation of the Second Plan may also be uneven, unless special care is taken to increase the ability of certain sectors to carry out their programme, while restraining the demands of those sectors which are capable of spending more than what is proposed in the Plan.

43. Private sector allocations should be interpreted in a different manner from those in the public sector. These allocations should be viewed as targets based on the objectives and priorities of the Plan, rather than as specific programmes centrally determined. Private investment decisions will be made by a host of people, influenced by market considerations and by incentives or disincentives provided by public policy, including controls over investment and allocation of foreign exchange. The purpose of indicating a breakdown of private investment in the Plan is not to tie the private sector in a straitjacket, but to provide guidelines for the private investor as well as public authorities, and also to show the relationship between private and public development expenditures.

44. The composition of private investment in the Second Plan is quite different from what actually occurred during the First Plan period. Largely because of the shortage of foreign exchange, private capital went into those kinds of investment, notably residential construction, in which the foreign exchange component was relatively small. In the Second Plan greater importance is accorded to investments, particularly in industry and transport, which have a relatively high foreign exchange component. This change of emphasis will require larger allocations of foreign exchange to the private sector than has been the case in the past. The change in composition of private development expenditures will also require revision of fiscal and monetary policies and direct controls so as to discourage luxury type construction and other lower priority uses of resources, and to stimulate desirable forms of investment. Particularly in agriculture and lower cost housing there are problems of financing which will require urgent solutions.

Rationale and summary of sectoral allocations

45. Decisions on inter-sectoral allocations have involved some difficult judgements on relative priorities of different programmes and schemes. It is obviously impossible to satisfy the multifarious needs and aspirations of a relatively poor but growing economy in a period of five years. All that can be attempted is to present a development programme which will meet the most essential requirements and, at the same time, set the country firmly on the road to rapid economic advancement.

46. *Agriculture.*—In making sector allocations, it has been necessary to ensure that sufficient resources are allotted to attain the national aim of self-sufficiency in foodgrains within the Plan period. Of great importance is the dominant role of agriculture as a source of national income, employment and raw materials for export and domestic use. Of the total public sector programme in agriculture amounting to Rs. 1,660 million, about 45 per cent (as against 33 per cent in the First Plan) is to be spent directly on increasing crop production through provision of fertilizer subsidies, seed multiplication and plant breeding facilities, plant protection services, and mechanization. Development expenditure on non-crop production (*i.e.*, forestry, animal husbandry and fisheries) accounts for about 18 per cent of the programme. Another 13 per cent of expenditure is for implementation of land reforms and for colonization of new barrage lands. These tasks are of prime importance. Foodgrain storage, agricultural education, development of special areas, soil conservation, and miscellaneous projects account for the remainder of the development programme for agriculture.

47. *Water and power.*—The growth of agriculture and industry is closely linked with the development of water and power resources. In West Pakistan, 58 per cent of land under cultivation depends upon irrigation ; and in East Pakistan, although rainfall is plentiful during certain parts of the year, lack of irrigation facilities during the dry months precludes double-cropping of vast areas in the Province. Other essential needs are : flood regulation ; measures to combat water-logging and salinity in West Pakistan and to reclaim tidal lands in East Pakistan ; and electric power for industrial use as well as for operating tubewells and pumps for drainage and lift irrigation.

48. The water and power development programme is the largest in the public sector. Even so, it will just meet the most urgent needs for the completion of on-going schemes, initiation of a few high-priority new projects, and the building up of social overheads in East Pakistan to spearhead acceleration of agricultural and industrial development. Of the total allocation of Rs. 3,140 million for the programme, about 35 per cent is exclusively for water development, 30 per cent exclusively for electric power, 25 per cent for multipurpose projects, and 10 per cent for investigations, surveys and miscellaneous schemes. Compared with the First Plan, relatively more will be spent on drainage, flood control and power, and relatively less on multipurpose and irrigation projects. A great deal of attention will be paid to technical investigations and surveys in preparation for the next stage of water and power development. The semi-public sector programme represents the estimated development expenditure of the Karachi Electric Supply Corporation, while the private sector programme includes expenditures on small irrigation schemes.

49. *Industry.*—The importance of industry in the economic development of Pakistan can best be appreciated by looking at long-run prospects. If the hope for acceleration in growth is achieved, national income will be doubled in 15 years. The value of imports of development goods alone will then

amount to at least two and one-half times the present export earnings, unless import substitution reduces the foreign exchange component of investment. Concurrently, at higher *per capita* income levels, consumer demand will become more varied, with proportionately less spent on primary needs such as food, and more on needs which manufactured goods alone can satisfy. This trend, in the absence of an increase in domestic manufacture, will exert strong pressures on the balance of payments, because exports are likely to expand at a slower rate than incomes. Also, domestically manufactured goods are expected 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 Plan period is to come from such goods. The relatively smaller allocation to industry in the public and semi-public sectors in the Second Plan, compared with the First, reflects greater dependence on private enterprise. Wherever possible responsibility for further development of industries have been shifted to the private sector.

50. Development expenditure in industry accounts for over one-fifth of the Plan investment. The allocation in the public sector covers mostly the establishment of industrial estates and training facilities. The programme in the semi-public and private sectors is divided between investment in fixed and in working capital, including inventories. Fixed investment in modernization, expansion, and construction of new manufacturing capacity is expected to absorb Rs. 3,315 million. Of this amount, the chemical industry (including a petroleum refinery) will account for about 25 per cent, textiles for about 25 per cent, engineering and metallurgy for 20 per cent, food and agricultural processing for 12 per cent, non-metallic minerals for 8 per cent. The remainder of the allocation is distributed amongst wood, paper, leather, rubber and miscellaneous industries. Compared with the First Plan, investment in chemicals, engineering, metallurgy, and non-metallic minerals, notably cement, will be larger, while investment in textiles, food and agricultural processing, wood and paper will be smaller. These priorities are in line with the need to broaden the industrial base by increasing the output of basic producer goods. One of the most important of these is steel, which will be produced by two plants from imported pig iron and scrap with a total initial capacity of 350,000 tons. When completed, these plants should satisfy about 70 per cent of the country's steel requirements. Reductions in investments in other industries reflect the lessening need in some industries for further expansion of productive capacity. Rs 500 million may be needed for increasing large scale industrial inventories. Adequate inventory accumulation is necessary to assure that shortages of materials and spare parts do not interfere with efficient operation of industrial capacity. Provision is also made for a revolving fund to be managed by the Small Industries Corporation for the purchase of materials and equipment, and for the extension of credit to small units.

51. *Fuels and minerals.*—With the rapid growth of industry and transport, the demand for fuel will rise steeply, as will the consumption of mineral raw materials. The allocation for fuels and minerals comprises Rs. 320 million for oil and gas prospecting, Rs. 350 million for transmission and distribution

of natural gas, Rs. 118 million for coal and peat production, and Rs. 50 million for exploration and development of minerals. About 60 per cent of the Rs. 550 million of development expenditure in the private sector is expected to be financed by private foreign investment. An important feature of the programme is that most projects are located in less developed areas ; it is an objective of the Plan to accelerate the rate of economic growth in such areas. The distribution of gas in West Pakistan will be extended to promote the substitution of imported by indigenous fuel and to alleviate the burden on the North Western Railway of transporting imported fuels from Karachi. The planned doubling of coal production, together with increased use of gas, should by the end of the Plan period provide an estimated Rs. 80 million annually in gross savings of foreign exchange. In East Pakistan petroleum prospecting will be accelerated and peat deposits developed.

52. *Transport and communications.*—The development of transport and communications requires heavy capital investment with an exceptionally high foreign exchange component. Full development needs in this sector exceed the resources that can be made available in the Plan. The allocation of Rs. 3,350 million is, therefore, intended to cover only those rehabilitation, replacement and expansion requirements which are considered most urgent, and which should help to prevent the emergence of serious bottlenecks likely to frustrate the realization of the Plan. Should such difficulties develop, however, extraordinary readjustments in the Plan may become necessary. The proposed programme for transport and communications amounts to almost 18 per cent of the total planned development expenditure. Of this amount 35 per cent is allocated to construction of roads and road transport ; 30 per cent to the railways ; 13 per cent to ports, shipping and inland water transport ; 12 per cent to telecommunications and broadcasting facilities ; 9 per cent to civil aviation ; and 3 per cent to the development of tourism. Compared with the First Plan, relatively larger sums are allocated to roads and road transport, reflecting particularly the need for improvement in rural areas in order to accelerate agricultural development. Roads have hitherto been poorly utilized because of the inadequate number of buses and trucks in operation. Investment in civil aviation is higher than in the First Plan, as an expansion of domestic and foreign services of Pakistan International Airlines is considered necessary. The allocation for the railways does not provide for any significant expansion of the system. The programme consists almost exclusively of rehabilitation of track ; improvement in signalling, terminal facilities and workshops ; and rolling stock for replacement with some necessary additions. The programme will need revision in the light of findings of the Railway Board's traffic surveys now under way and the general transport survey being carried out in East Pakistan. Development of inland water transport, the mainstay of the transport system in East Pakistan has lagged very seriously in the past, and will need to be greatly speeded up. The allocation for ports is intended to complete the rehabilitation of Karachi Port, and to undertake essential improvements in riverside facilities in East Pakistan. The communications programme provides for a considerable increase in the number of telephones and post offices, and for much needed expansion of telecommunications and broadcasting facilities.

53. Private investment in road transport, inland water transport and shipping is to be encouraged. The expansion of road goods transport services will take place entirely in the private sector, and a large part of the programme for passenger transport will also be undertaken by private operators. Except in special cases, the extension of government-owned transport and monopolization of routes by government operated lines will be discouraged. Development of inter-provincial and international shipping, which was included in the public sector in the First Plan, is now left entirely to private enterprise. Of particular importance is the programme for modernization, expansion and repair of the private inland water transport fleet, and for construction of slipways, docks, and a pilot yard for building tugs. The success of this programme will depend upon improved supply of materials, equipment, and spare parts.

54. *Housing and settlement.*—The allocation for housing and settlements is intended to cover the cost of completion of the most important on-going schemes, initial construction of the Capitals at Islamabad and Dacca and a few selected projects. The provision of adequate houses, Water supply, and sanitary facilities for the nation's population is a gigantic task well beyond the foreseeable resources of the Government. The programme, therefore, concentrates on those needs which cannot satisfactorily be undertaken by private agencies, e. g., town planning, housing of shelterless displaced persons, large-scale water supply and sewerage, and technical assistance. The major burden must be carried, to the extent possible, by private investment and community effort.

55. A sum of Rs. 895 million is allocated to the public sector, of which the provision for construction of the new Capitals accounts for 25 per cent. The rest of the public sector programme is divided into 470 million for urban housing ; Rs. 125 million for water supply and sewerage ; Rs. 30 million for administrative buildings outside the new Capitals ; and Rs. 42 million for surveys, research and training. In addition, an allocation of Rs. 810 million is made for the development programme of improvement trusts, local bodies and the proposed industrial workers housing corporations. The private sector allocation is for urban residential and commercial construction. In the past, an excessive amount of private investment has gone into luxury housing. This is to be discouraged.

56. *Education and training.*—The very substantial increase in the Plan allocation for education and training reflects the conviction that rapid acquisition of knowledge and skills is of fundamental importance to the future of the country. The allocation would have been still higher had the available resources so permitted, and if the supply of competent teachers were not so limited and the time required to train them not so long. The allocation made in the Plan for the sector is, however, in fact larger than it appears, since recurring costs of the programme are now not included in the Plan. Half of the total recurring and non-recurring expenditure in the public sector is divided about equally between primary and secondary education, 15 per cent is reserved for colleges and universities, 15 per cent for technical

training, and the remainder is for other training, research, and social and cultural activities. Compared with the First Plan, relatively larger allocations are made for primary education and technical training. In secondary and higher education on the other hand, the emphasis is on improvement of proficiency and inculcation of qualities of leadership. The maximum feasible programme is proposed for training of teachers; and research activities, which have been limited in scope, are to be broadened and improved. In addition to this programme, an expenditure of Rs. 379 million on training and research is provided in other sectors. Another feature of the programme is the provision of enlarged facilities for the education of women to enable them to participate in the national life in increasing numbers. Private investment in educational and training institutions will be Rs. 100 million.

57. *Health, manpower, social service and Village AID.*—The programme for health, manpower, social service and Village AID, taken together with the programmes for education and housing, constitutes a comprehensive approach to the development of human resources. Of the allocation of Rs. 350 million to health, Rs. 150 million is provided for hospitals, dispensaries and rural health centres; Rs. 85 million for eradication of malaria and prevention and cure of tuberculosis; Rs. 68 million for training of doctors and nurses; and Rs. 50 million for family planning, maternity care, child welfare, nutrition and other purposes. Higher priority has in general been given to preventive as compared with curative services. Emphasis has been placed on combating malaria and tuberculosis, which are responsible for a quarter of a million deaths annually. Campaigns will be carried out also against small-pox, leprosy and trachoma. The greatest single barrier to an effective health programme is the shortage of qualified doctors and nurses; for this reason, additional training facilities have received priority attention. Family planning is indispensable to curb the high rate of increase in population and to offset the effect of reduced mortality rate brought about by enforcement of more efficient health measures in recent years. The manpower programme proposes the creation of a national manpower council to define and coordinate national manpower policies; reorientation of the employment exchange programme; nation-wide provision for coordination of industrial training; and measures to attain full utilization of scientific and professional manpower. To improve the productivity of the labour force provision is also made for improved enforcement of standards of safety, sanitation and health; elimination of child labour; settlement of industrial disputes; the beginning of a social insurance programme; and expanded facilities for fact-finding and research. In the social service field public expenditure is allocated for development and preventive social work such as organization and administration of urban community development programmes and model institutions, research on social problems, and training of social workers. Remedial and curative social work will largely be financed by private agencies; the Government will provide financial grants for motivating private effort and employment of trained personnel in private agencies. The village AID programme aims at achieving complete coverage of the country at the development officer level and at least 85 per cent at the village worker level.

Physical targets

58. Some of the important physical targets of the Plan are given in Table 3. The output of foodgrains is expected to increase from an estimated 13.2 million tons in 1959-60 to 15.9 million tons in 1964-65, an increase of 21 per cent. There will also be considerable increase in the production of cash crops ; cotton production is expected to rise to 2.3 million bales and jute production to 7.3 million bales by the end of the Plan period. Industrial production is planned to increase by about 47 per cent ; 60 per cent in large scale industry and 25 per cent in medium and small scale industry. Producer goods will receive greater emphasis than consumer goods. Among the more important industrial production targets are : 52 per cent increase in jute goods ; 36 per cent increase in cotton yarn, 186 per cent increase in cement production ; and initiation of steel production. The development of water and power resources and of transport and communications facilities will be geared to the requirements of agriculture and industry.

TABLE 3
Important physical targets

	Unit	1959-60	1964-65	Percentage increase
AGRICULTURAL PRODUCTION :				
Wheat	Thousand tons	3,703	4,329	17
Rice (cleaned)	" "	8,341	10,164	22
Other grains	" "	1,145	1,428	24
Total foodgrains		13,189	15,921	21
Jute	Thousand bales	6,000	7,300	22
Cotton	" "	1,666	2,292	38
Sugarcane	" Tons	15,430	20,800	35
Fish	" "	290	360	24
WATER AND POWER :				
New irrigated area (during previous 5 years)	Thousand acres	1,082	2,445	..
Improved area (during previous 5 years)	" "	2,570	7,112	..
Installed electric power capacity (net)	" kw	906	1,272	40

TABLE—contd.

	Unit	1959-60	1964-65	Percentage increase
INDUSTRIAL AND MINERAL PRODUCTION				
Cotton yarn	.. .. Million lbs.	380	520	36
Jute goods	.. .. Thousand tons	250	380	52
Cement	.. .. " "	1,050	3,000	186
Steel	.. .. " "	—	350	..
Soda ash	.. .. " "	25	74	196
Coal	.. .. " "	723	1,500	107
TRANSPORT :				
Railway rolling stock (acquired during previous 5 years) :				
Locomotives	.. .. Units	135	162	..
Wagons	.. .. " "	7,253	7,408	..
Coaches and other	.. .. " "	628	789	..
Metalled roads	.. .. Miles	10,775	14,520	35
Buses and trucks	.. .. Units	25,000	36,000	44
Inland water transport channels	.. .. Miles	2,800	4,000	43
COMMUNICATION :				
Post offices	.. .. Units	9,850	11,150	13
Telegraph Offices	.. .. " "	1,040	1,340	29
Telephones	.. .. Thousands	75	121	60

Internal consistency of the Plan

59. For a Plan to be internally consistent, the requirements of consumer and investment goods, foreign exchange, transport facilities, and skilled manpower should be matched by expected availabilities. Thorough analysis of the supply and demand for key goods and services during the Plan would require detailed information on consumer budgets and income-elasticity of final demand for different goods and services; in put-output relationships in industry; statistics on the movement of goods on all forms of transport; and a comprehensive manpower survey. The inadequacy of available information on these points is a serious handicap to planning. Nevertheless, an effort has been made to assure internal consistency of the Plan on the basis of available data.

60. It is estimated that total consumption will increase by about 17 per cent and *per capita* consumption by 7 per cent during the Plan period. This increase is to be met from domestic production. Imports of foodstuffs will decline while imports of other consumer goods are projected to remain constant at the present level. The 21 per cent increase in foodgrains output is intended to replace existing imports, and to cover the increased consumption needs of a growing population. The expansion in production of vegetables and fruits, oils and fats, livestock products, fish and sugar is required to satisfy the more diversified demand that will result from rising *per capita* incomes. *Per capita* consumption of textiles is expected to rise from an average of 12 yards during the First Plan period to 14.5 yards by the end of the Second Plan period. To meet an essential part of the demand, an increase in the output of other manufactured consumer goods will be necessary.

61. Higher development expenditures contemplated in the Plan, and particularly the projected increase in industrial production, will require very large availability of producer and capital goods. Imports will rise swiftly, but it will also be necessary to step up domestic output of producer goods very greatly. Given the stringent balance of payments position of the country it will not be enough to increase output on the basis of processing, assembling, finishing and packaging imported materials and components. Therefore, great emphasis is placed on expanding production of basic metals, chemicals, fuels and other major inputs of the industries which produce goods for final investment and consumption. These requirements are reflected in the production targets shown in Table 3.

62. The foreign exchange component of development expenditure is estimated at Rs. 6,500 million : about Rs. 4,000 million for the government financed part of the programme and Rs. 2,500 million for the rest of the programme. This represents about 34 per cent of total development expenditure, which is roughly in line with the First Plan experience and with the experience of other countries at a comparable level of industrialization and development. The relatively higher foreign exchange component of investment in industry, fuels and minerals, transport and water and power, are offset by the relatively lower import requirements of the other sectors.

63. The Plan assumes that the increase in freight ton-miles to be carried by the nation's transport network will be of the order of 40 per cent. The distribution of increased traffic between the different forms of transport, however, is exceedingly difficult to predict due to paucity of data. In West Pakistan it is assumed that the relative importance of road transport will increase, whereas East Pakistan will continue to depend very largely on its inland waterways. Because serious disruptions of transport can occur from isolated bottlenecks on particular routes at particular times for particular kinds of traffic, and not necessarily from a general shortage of transport facilities, it will be necessary to keep a close watch on future developments.

64. With respect to requirements and availabilities of trained manpower, the out-turn from educational and training institutions may well fall short

of needs. It will, therefore, be necessary to close this gap by special arrangements, such as extending retirement ages, attracting Pakistani technicians who are now employed outside the country, contracting services of foreign consultants and operators, and ensuring optimum mobility and use of technicians and skilled craftsmen now on the job. The heavy emphasis on education and training in the development programme will ease the shortage over the longer run.

Flexibility of the Plan

65. Reference has already been made earlier in this chapter to the importance of flexibility in the Plan. It would be unrealistic to expect that all the assumptions and targets of the Plan will be exactly fulfilled. Certain factors such as the weather, the terms of trade, and the availability of foreign capital and assistance, are clearly unpredictable. Also, a large part of the development programme lies in the private sector, which can be influenced to a considerable extent by public policy, but which functions on the basis of numerous uncoordinated individual decisions. Other sources of uncertainty are the lack of detailed schemes supporting some parts of the development programme, and the provisional nature of demand projections for certain goods and services. All these uncertainties emphasize the need for preserving flexibility in the Plan. In the circumstances, the Plan is a guide to future programme and policies, not an immutable blueprint. As the state of knowledge improves through further investigation, surveys and experience, and after the reports of various commissions appointed to study special problems become available, it may become necessary to make adjustments in the Plan. Resources projections, financing provisions, and production targets are given in considerable detail in the Plan in order to facilitate evaluation of progress and the making of necessary adjustments. To a certain extent uncertainties can be offset by building up adequate stocks of important commodities like foodgrains and imported materials and spare parts, and by maintaining an adequate reserve of gold and foreign exchange to be used in emergencies. This is provided for in the Plan. Reserve accumulation is, however, only a partial solution. It is, moreover, costly and if carried beyond a certain point can absorb resources to an extent that can jeopardize economic development.

66. As stated earlier, the principal instrument for ensuring flexibility and making appropriate adjustments in the Plan is the annual development programme, which will be based on a detailed assessment of resources and requirements. At the time of the preparation of the annual development programme, there will also be an opportunity to form a judgement about the performance of the economy, and to identify the sectors which require concentration of effort and resources.

67. Amendments, adjustments, and improvements will be made as required to achieve the objectives of the Plan. Flexibility in planning does not imply absence of discipline. Changes in the Plan will be made not in a haphazard manner or without adequate reasons, but only after full consideration of all relevant facts and views, and no executing agency will

make major alterations on its own responsibility. The First Plan suffered from laxity of discipline in implementation ; it is essential that strict discipline be observed in the implementation of the Second Plan.

Structural changes in the economy:

68. By the end of the Second Plan period, the structure of the economy will have undergone some important changes. The share of agriculture in gross national product will have declined from an estimated 55 per cent in 1960 to less than 52 per cent in 1965 in spite of the acceleration in agricultural development. The share of manufacturing, on the other hand, will have risen from about 14 per cent of gross national product at the beginning of the Plan to almost 17 per cent by 1965. The relative contribution of services (government, finance, wholesale and retail trade, transport, and other services) will also have increased, but only slightly. A notable feature of the changing structure of the economy will be that large scale industry will account for increasing the relative importance of manufacturing. In 1955, at the beginning of the First Plan, large scale industry contributed less than 5 per cent of gross national product ; in 1960 this share rose to over 8 per cent ; and by 1965 it is expected to reach almost 12 per cent.

69. Changes in the composition of production will be accompanied by changes in the structure of the labour force. Well over 60 per cent, or over 19 million persons, are still employed in agriculture. During the next twenty years, it is estimated that another 15 million people will join the labour force. The majority of these people will have to find non-farm employment to prevent population pressure on the land from worsening, because the amount of new land that can be brought under cultivation is limited. Non-agricultural employment is expected to increase by about one-fifth, during the Second Plan period ; in another 20 to 25 years it should be twice as large as at present. The rapid increase in the non-agricultural labour force will result in a high rate of urbanization. Although efforts are being made to stimulate medium and small-scale industries outside the larger urban areas, and most of the demand for agricultural labour and for construction labour on irrigation projects will be in rural areas, it is unlikely that the remarkable increases in population that have occurred in the larger cities during recent years will slow down appreciably. Consequently, demands for urban housing, water supply, sewerage, and other community facilities will strain available resources to the utmost during the foreseeable future.

70. As a result of the changes in the structure of production, employment, and habitate, the subsistence sector of the economy is expected to contract in relative terms. The expansion of the monetary sector will increase the demand for money and financial services and broaden the tax and savings base of the economy. Consumption goals and income aspirations will expand, which should provide new incentives for greater efforts as well as accentuate the race between rising incomes and expectations. If the development programme is carried out as planned, it should be possible to increase real *per capita* income by 50 per cent over the present level by the end of the Fourth Plan and double it during the Sixth.

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CHAPTER 2

RESOURCES AND FINANCING

Resources

THE Plan proposes an expenditure of Rs. 19,000 million. To understand the assumptions underlying the financing of a Plan of this size, it is helpful to look at the sources and uses of national resources, both in the First and the Second Plan periods. These are shown in Table 1.

2. For the First Plan period, gross national product is estimated at an annual average of about Rs. 22,600 million at current prices. Foreign aid and loans, foreign private investment and the use of the country's own foreign exchange reserves added, on an average, another Rs. 1,000 million per annum to the flow of national resources. The total resources available on an average to the country were, therefore, nearly Rs. 23,600 million per annum. Of this, about 9 per cent went into investment, and the rest into private consumption or Government's non-development expenditure, in the estimated proportion of about 80 per cent and 10 per cent respectively. Even though gross investment was only about 9 per cent of total resources during the First Plan period, it increased at a rate faster than consumption : the increase in investment was about 60 per cent as against 45 per cent in consumption. Adjusted to the rise in prices during this period, the real increase in investment and consumption might be about 28 per cent and 15 per cent respectively.

3. During the Second Plan period, gross national product is expected to increase by 20 per cent. It is also hoped that foreign aid and loans and foreign private investment will contribute about Rs. 8,000 million (Rs. 1,600 million annually), and that aid under US P.L. 480 will continue at its present level, adding another Rs. 1,700 million (Rs. 340 million annually) to national resources. On these assumptions, total resources amounting to Rs. 151,190 million (about Rs. 30,000 million annually) should be available during the Plan period.

4. To find Rs. 19,000 million required for the Plan, it will be necessary to increase the percentage of total resources allocated to development from about 9 per cent under the First Plan to 12·5 per cent under the Second Plan. This is possible only if increase in the non-development expenditure of the Government and in private consumption is kept in check through suitable policies. It is assumed that the non-development expenditure of the Government will increase by about 20 per cent and private consumption by 17 per cent during the Plan period. These assumptions should be regarded as upper limits which, if exceeded, will materially reduce the resources available for the Plan.

5. The projection of non-development expenditure of the Government is based on a modest increase in normal administrative expenditure, and an estimated increase in recurring expenditure of development schemes. The basis of this projection is explained below. It is essential that constant watch be kept on the increase in the non-development expenditure of the Government to prevent absorption of resources needed for development.

TABLE I
Sources and uses of National Resources

	(Million Rupees)										Percentage increase in 1964-65 compared with 1959-60		
	First Plan (a)					Second Plan (a)							
	1955-56	1956-57	1957-58	1958-59	1959-60	Total First Plan period	1960-61	1961-62	1962-63	1963-64		1964-65	Total Second Plan period
Sources :													
Gross national product	18,200	22,630	22,200	24,500	25,430	112,960	26,235	27,090	28,215	29,370	30,580	141,490	20
Inflow of foreign resources													
Aid, loans and investments	525	515	577	710	1,125	3,452	1,250	1,350	1,550	1,800	2,050	8,000	60
Foodgrain and other aid (US P.L. 480)	145	430	358	315	370	1,618	340	340	340	340	340	1,700	
Foreign exchange reserves(b)	-340	90	300	50	-270	-170	-	-	-	-	-	-	-
Total resources	18,530	23,665	23,435	25,575	26,655	117,860	27,825	28,780	30,105	31,510	32,970	151,190	23
Uses :													
Investment(c)													
Public	770	920	1,210	1,370	1,680	5,950	3,100	3,350	3,700	4,150	4,700	19,000	75
Private	900	930	1,000	1,000	1,000	4,830	-	-	-	-	-	-	
Consumption..													
Public	2,000	2,250	2,700	2,550	2,500	12,000	2,600	2,700	2,800	2,900	3,000	14,000	20
Private(d)	14,860	19,565	18,525	20,655	21,475	95,080	21,985	22,590	23,465	24,320	25,130	117,490	17
Total uses	18,530	23,665	23,435	25,575	26,655	117,860	27,685	28,640	29,965	31,370	32,830	151,190(e)	23

(a) First Plan estimates are in current prices whereas the Second Plan estimates are in constant prices, with 1959-60 as the base period.

(b) Minus sign indicates that reserves were built up, thus reducing the availability of resources, and vice versa. Figures for 1959-60 are till March 1960.

(c) First Plan estimates have been adjusted to the definition of development expenditure used in the Second Plan.

(d) Obtained as a residual. It includes non-Plan investment for which no estimate is available.

(e) Includes Rs. 700 million of local expenditure on Indus Basin replacement works.

6. Private consumption is expected to increase during the Plan period but at a rate slower than the increase in gross national product. The strategy of the Plan is to capture a substantial part of the additional income for investment purposes. About 15 per cent of the total increase in gross national product—or about 25 per cent of the additional income per head will have to be recaptured and invested during the Plan period. This target of marginal saving represents a reasonable balance between the need for raising the current standard of living and the long-term requirements of the country for capital formation and self-sustained growth. But the target will not be attained without strenuous efforts. The average rate of saving is estimated at 6.5 per cent at present ; the marginal rate of saving during the Plan period will have to be twice as high as the current average rate. This means that out of additional incomes generated by the Plan, as much as Rs. 2,000 million must be saved. In order to do this, it is proposed to impose additional taxation of Rs. 1,000 million, particularly of a kind which reaches the ordinary incomes, and to provide all possible incentives for higher savings by raising interest rates, creating new savings institutions, and adopting appropriate fiscal and monetary policies. Some of these aspects are discussed in the next chapter.

Gross capital formation

7. The proposed investment of Rs. 19,000 million is in gross terms. It includes expenditure on depreciation and replacement. Not all the expenditure included in the Plan will, however, lead to physical capital formation. Some of the expenditure on village AID, scholarships, research, and social welfare activities, for instance, will not lead to the formation of any physical assets, even though it is a part of development expenditure. On the other hand, some capital formation will take place in the economy which it has not been possible to include in the Plan for lack of reliable estimates : for instance, private investment in rural housing and commercial inventories, a part of the direct private investment in agriculture, and non-monetary, investment in various sectors of the economy. Plan expenditures, therefore, provide only an approximate index to gross capital formation in the country.

8. Gross investment was about 9.5 per cent of gross national product in the First Plan period, as shown in Table 2. Total investment increased almost at the same rate as gross national product during the First Plan period, with some annual fluctuations. It is premature to say at this time what the actual performance will be in the last year of the First Plan, but the indications are that gross investment will be above the level of the previous years. Several factors account for this : determination of the present Government to complete as much of the First Plan as possible ; the austerity drive launched by the Government, particularly in the import sector ; generous tax concessions to individuals and firms for investment purposes ; increase in interest rates on saving deposits ; and streamlining of the non-development expenditure of the Government.

TABLE 2

Estimates of gross capital formation (a)

	Gross national product	Gross investment (b)			Total gross investment as proportion of GNP	Gross domestic savings	
		Public	Private	Total		As proportion of GNP	
	(Million Rupees)				(Per cent)	(Million Rupees)	(Per cent)
First Plan :							
1955-56 ..	18,200	770	900	1,670	9.2	1,440	7.9
1956-57 ..	22,630	920	930	1,850	8.2	1,015	4.5
1957-58 ..	22,200	1,210	1,000	2,210	10.0	1,175	5.3
1958-59 ..	24,500	1,370	1,000	2,370	9.7	1,500	6.1
1959-60 ..	25,430	1,680	1,000	2,680	10.5	1,650	6.5
Total ..	112,960	5,950	4,830	10,780	9.5	6,780	6.0
Annual average ..	22,592	1,190	966	2,156		1,356	
Second Plan :							
1960-61 ..	26,235			3,100	11.8	1,850	7.0
1961-62 ..	27,090			3,350	12.4	2,000	7.3
1962-63 ..	28,215			3,700	13.1	2,150	7.6
1963-64 ..	29,370			4,150	14.1	2,350	8.0
1964-65 ..	30,580			4,700	15.4	2,650	8.6
Total ..	141,490			19,000(c)	13.4(c)	11,000	7.8
Annual average ..	28,298			3,800		2,200	

(a) The estimates are in current prices for the First Plan period and in 1959 prices for the Second Plan period.

(b) The estimate of gross investment is in accordance with the definition of development expenditure in the Second Plan. The breakdown of gross investment between public and private sectors is not given for the Second Plan period, since the total programme has now been divided into three sectors—public, semi-public and private.

(c) Excludes investment in Indus Basin replacement works. Including replacement works, average gross investment will be about 15 per cent of GNP.

9. During the Second Plan period, total gross investment is expected to be over 13 per cent of gross national product on an average. The annual phasing of this investment will depend on the resources that can be mobilised every year, but it is tentatively assumed that gross investment will increase from over 10 per cent of gross national product in 1959-60 to over 15 per cent by 1964-65. This increase will be dependent on a substantial increase in domestic savings and foreign assistance.

Gross domestic savings

10. It is difficult to obtain a reliable estimate of domestic savings when direct information is lacking about aggregate consumption. A rough estimate has been prepared, however, by taking actual investment and deducting the part financed by foreign aid and loans, private foreign investment and use of foreign exchange reserves. (Table 2). In these calculations domestic savings have been estimated by excluding all foreign assistance (both food and non-food) except for non-development expenditure out of counterpart funds, e.g., expenditure on induction of military aid and on U.S. Missions in Pakistan.

11. Gross domestic savings averaged around 6 per cent of gross national product during the First Plan period. The high level of domestic savings in 1955-56 can be attributed partly to accumulation of foreign exchange reserves as a result of devaluation. Since 1956-57, domestic savings have increased steadily, and are expected to rise to about 6.5 per cent in 1959-60. The figures for 1959-60 are, however, still provisional and it will not be correct to impute any particular trend to these estimates. The estimates for the Second Plan period should not be based on the experience of a single year, 1959-60. In an economy like Pakistan, savings can vary a great deal, depending on the success or failure of crops. It would be safer to base future projections on the average saving rate realized during the First Plan period.

12. The average saving rate experienced in the First Plan period was about 6 per cent. There are reasons, however, to believe that saving potential in the economy was higher than was actually realized, because a sizeable amount of potential savings was spent unproductively on such things as elaborate ceremonials and jewellery, or was left idle because of the lack of import component of development due to shortage of foreign exchange or because of other disincentives for private investment. Also, the level of domestic savings in 1959-60 can well be taken to reflect the austerity drive launched by the present Government, and the growing confidence of the investors in the future of the economy. Considering all these factors, it seems reasonable to assume current potential savings at about 7 per cent of gross national product for the purposes of future projections. The target of marginal savings is 15 per cent for the Second Plan period; the average savings rate is expected to rise steadily from 7 per cent in 1960-61 to 8.6 per cent in 1964-65, averaging around 7.8 per cent over the entire Plan period. On this basis, domestic savings amounting to Rs. 11,000 million can be mobilised for development.

Foreign assistance

13. The Plan requires Rs. 8,000 million of foreign assistance : Rs. 6,500 million to meet the foreign exchange component of the Plan and Rs. 1,500 million as balance of payments support. In addition, foodgrain and other assistance under US P.L. 480 is expected to continue at its current annual level, yielding roughly Rs. 1,700 million during the Plan period. This is discussed in detail in Chapter 4 : here only the contribution of foreign assistance to total resource availability is summarized.

14. The Plan indicates only the requirement of foreign assistance. It is not possible to forecast the amount of foreign assistance that will actually be available. It is hoped, however, that the amount of aid and loans that are needed will be forthcoming in view of what has been received in the past and the current level of aid commitments.

15. In the public sector, total commitments of external aid and loans, excluding foodgrain aid, stood at Rs. 1,334 million in 1958-59, as shown in Table 3 below.

TABLE 3
Commitments of external aid to public sector (1958-59)
(Million Rupees)

<i>U. S.</i>								16
Project aid	..	..	..	..	..	..	..	455
Development Loan Fund (DLF)				..	..	..	..	454
Commodity aid (P.L. 665)	..	..	..	..	..	..	..
						Sub-total	..	925
<i>Non-U. S.</i>								70
Project aid (capital and technical assistance)				..	..	..	..	16
Commodity aid	..	..	..	..	..	..	..
						Sub-total	..	86
<i>Special loans</i>								133
U. K. loan	..	..	..	..	..	..	..	190
German loan	..	..	..	..	..	..	..
						Sub-total	..	323
						Total	..	1,334

If these commitments, excluding the special loans from the U.K. and Germany, were to continue at the 1958-59 level, the public sector would receive about Rs. 5,000 million of aid and loans during the Plan period.

16. Again, it is difficult to estimate the amount of private foreign investment that will be attracted to Pakistan, but it is intended to give every encouragement to potential investors and the resulting flow of foreign capital.

might be considerable. Provisionally, it is assumed that about Rs. 1,500 million of foreign investment and loans will be available to the private and the semi-public sectors during the Plan period.

17. Foreign investments in oil and gas explorations and oil refining are expected to be about Rs. 440 million. In addition to direct foreign investment, private industry will also be assisted by loans from the World Bank, the International Finance Corporation, the International Development Association, the Development Loan Fund and other international agencies. These loans are expected to amount to about Rs. 500 million and will be channelled primarily through the Pakistan Industrial Credit and Investment Corporation. Foreign loans to the semi-public sector, which have been quite substantial in the past, are estimated at about Rs. 400 million for the Plan period. The total amount of foreign investment in the private and semi-public sectors is estimated at Rs. 1,500 million.

18. In the last few years, assistance under US P.L. 480 has contributed over Rs. 300 million annually as foodgrain aid. The requirement for foodgrain aid will diminish as foodgrain self-sufficiency is gradually reached during the Plan period. Instead, it is hoped that P.L. 480 assistance will be forthcoming in providing such non-food items as tobacco, cotton, oils and fats. Tentatively, it is expected that assistance under US P.L. 480 will amount to Rs. 1,700 million in the Plan period: Rs. 1,000 million in the form of foodgrains and Rs. 700 million in the form of non-food items. The counterpart funds generated by the latter will help to finance the local currency expenditure on Indus Basin replacement works.

Financing

19. It is proposed to finance the Plan as follows:

TABLE 4

Sources and uses of resources for development

<i>Sources</i>		<i>Uses</i>		(Million Rupees)	
Domestic savings	11,000	Public sector	9,750		
Foreign aid, loans and investments	8,000(a)	Semi-public sector (public corporations)	3,250		
		Private sector	6,000		
	<u>19,000</u>				<u>19,000</u>

(a) The total foreign resources, including food-grain aid, are expected to be Rs. 9,700 million, of which Rs. 1,000 million will be required for non-development uses by the U.S. and Rs. 700 million for Indus Basin replacement works, leaving Rs. 8,000 million for the Plan.

20. Specific financial plans are needed for the public, semi-public and private sectors. Domestic savings and foreign assistance may accrue to one sector and be utilized in another sector, thus requiring financial transfers. The following discussion gives a brief analysis of the proposed financial arrangements for these sectors.

Public sector

21. The public sector is expected to mobilize Rs. 11,500 million of resources. Of this, Rs. 9,750 million will be needed by the public sector programme, and Rs. 1,750 million will be transferred to the semi-public sector. These resources are expected to be mobilized by adoption of the means described below.

TABLE 5

Financing of the public sector

(Million Rupees)

Sources		
Surplus on revenue account ..	.. .. .	800
Capital receipts ..	.. .. .	1,500
Counterpart funds (a) ..	.. .. .	2,500
Customs on commodity aid ..	.. .. .	500
Foreign aid and loans (b) ..	.. .. .	4,000
Resources of local bodies ..	.. .. .	200
Additional taxation ..	.. .. .	1,000
Deficit financing ..	.. .. .	1,000
		11,500
Uses		
Public sector own development programme ..	.. .. .	9,750
Loans to the semi-public sector (public corporations) ..	.. .. .	1,750
		11,500

(a) Excluding Rs. 700 million to be used for Indus Basin replacement works and customs on commodity aid.

(b) Excluding defence support and P.L. 480 aid.

22. *Surplus on revenue account.*—It is expected that the Government will have a surplus of Rs. 800 million on revenue account, after meeting all non-development revenue expenditure. (Table 6). As a result of the increase in national income the tax revenues in 1964-65, at the present rates of taxation, are expected to be nearly 25 per cent higher than in 1959-60. This projection is based on past experience regarding the relationship between the growth in income in various sectors and the growth in tax revenues. The sectors from which tax revenues are mainly raised are industry and commerce; income in these sectors will increase at a rate much faster than the national average. This explains the increase in tax revenues by 25 per cent, while national income increases by only 20 per cent. The revenue from public undertakings is also expected to increase in line with the increase in national income.

TABLE 6

*Surplus on revenue account**(Consolidated accounts of Central and Provincial Governments)*

(Million Rupees)

Revenue Receipts				Revenue Expenditure			
Receipt head	1959-60	1964-65	Total Second Plan period	Expenditure head	1959-60	1964-65	Total Second Plan period
<i>Taxes</i>							
Customs	490	550	2,580	Defence	860	880	4,340
Excise duties (Central and Provincial) ..	310	390	1,800	Administration	630	680	3,260
Sales tax	285	390	1,700	Debt services	170	230	1,000
Income and corporation tax	265(a)	400	1,820	Development departments			
Land revenue ..	295	320	1,550	Normal expenditure ..	400	480	202
Other taxes	205	220	1,060	Recurring cost of First Plan	150	150	750
Total ..	1,850	2,270	10,510	Recurring cost of Second Plan	Nil	250	750
<i>Revenue from public undertakings</i>							
Irrigation and electricity	80	90	435	Burden of compensations	40	50	250
Railways and posts and telegraphs.	135	175	785	Other miscellaneous expenditure	170	180	930
Currency and mint ..	30	35	160	Total ..	2,420	2,900	13,480
Total ..	245	300	1,380	Surplus	80	170	80
<i>Other revenues</i>	405	500	2,390	Grand Total ..	2,500	3,070	14,280
Grand Total ..	2,500	3,070	14,280				

(a) Excluding extraordinary collections of income tax.

23. Defence will claim the major share in the revenue expenditure of the Government. It is expected, however, that absolute expenditure on defence will be stabilized at about its present level, barring any extraordinary developments in the international situation. Defence expenditure is currently claiming nearly 40 per cent of the total revenue expenditure of the Government and about 3·5 per cent of gross national product. It is hoped that the increase in normal administrative expenditure such as on general administration, foreign affairs, police etc., will be held in check, so that it does not increase by more than 2 per cent per annum. The burden of debt services will increase in the line with government borrowings. The estimate of debt services does not include large payments to be made by the Provinces to the Centre : these are inter-government transfers and do not affect the overall availability of resources.

24. Provision has been made in these projections for likely increase in the normal expenditure of the various departments mainly responsible for implementing the Plan. These departments will need considerable strengthening if development expenditure is to be effective, especially in East Pakistan. Furthermore, the recurring cost of development schemes in certain sectors, such as education and health, completed during the First and the Second Plan periods will also have to be included. These recurring costs are an essential part of the Plan, and an adequate provision must be made in the normal budgets to cover these, so that the facilities established by the Plan are fully utilized. The recurring cost of schemes completed during the First Plan is estimated at Rs. 150 million in 1959-60; the total liability on this account will be Rs. 750 million during the Second Plan period. To this will be added the recurring cost of schemes to be undertaken during the next five years. It is estimated that recurring liability of the Second Plan schemes will increase gradually to Rs. 250 million by the end of the Plan period, the total recurring liability on this account being Rs. 750 million during the Second Plan period and Rs. 1,250 million during the Third Plan period.

25. Expenditure on payment of compensation in lieu of the acquisition of rental interests in East Pakistan is estimated at Rs. 250 million.

26. *Capital receipts.*—Net capital receipts are expected to amount to Rs. 1,500 million during the Plan period (Table 7). The main sources of these receipts will be small savings, public borrowing from non-bank sources, sale of PIDC assets, and depreciation funds of the railways and posts and telegraphs.

27. Small savings have been increasing rapidly in the past as a result of the facilities provided by the Government, and the special incentives given by way of yield on small saving certificates. The present yield on Ten-Year National Development Saving Certificates is 6 per cent tax-free. Small savings increased from Rs. 24 million in 1950-51 to Rs. 68 million in 1954-55,

and are likely to be Rs. 120 million in 1959-60. These are expected to increase by about 25 per cent during the Plan period. This should be possible if the present maximum ceiling of Rs. 25,000 on saving certificates is raised, and a vigorous publicity drive is undertaken to popularise them.

TABLE 7

Net capital receipts

(Million Rupees)

Capital receipts	1959-60	1964-65	Second Plan period
Small savings	134 (a)	150	700
Borrowings from non-bank sources	60	100	400
Sale of PIDC assets	34	40	200
Railways and P. & T. depreciation funds	72	110	500
Other receipts	110	130	600
	410	530	2,400
Capital liabilities			
Defence services	19	Nil	60
Foreign debt repayment	30	50	300
Other liabilities	11	40	140
Loans to finance corporations and private sector	Nil	100	400
	60	190	900
Net capital receipts	350	340	1,500

(a) This is the budget estimate but current expectation is that actual receipts will amount to Rs. 120 million. Future projections are based on this assumption.

28. Public borrowings from non-bank sources (individuals, insurance companies, trusts, and joint stock companies) amounted to Rs. 95 million in 1959: Rs. 60 million of net borrowings and Rs. 35 million by conversion

of old loans. Notwithstanding the exceptional circumstances in 1959, when there was excess liquidity in the market, the Plan target of net borrowing of Rs. 400 million over the five year period should be achieved if interest rates are revised and capital market is developed. This is discussed in the next chapter.

29. The sales of assets of the Pakistan Industrial Development Corporation (PIDC) were about Rs. 80 million during the First Plan period. The Government is now anxious to dispose of PIDC assets at an accelerated rate. The present public share in the assets of PIDC amounts to about Rs. 800 million, to which another Rs. 970 million of public assets are proposed to be added during the Second Plan period. There will thus be a sufficient number of profitable projects which could be sold to the private sector in the next five years. A careful policy of disposal will have to be worked out in this connection, keeping in mind the nature of the various projects, their completion and maturity dates, and the future role of PIDC. A tentative target suggested in the Plan is that about Rs. 200 million of PIDC assets should be sold to the private sector during the Plan period.

30. The capital liabilities are estimated at Rs. 900 million, mainly on account of foreign debt repayment and loans to government finance corporations and the private sector. The requirement of government financing for these corporations and for the private sector is discussed later in this chapter.

31. *Counterpart funds.*—Counterpart funds will be generated by defence support aid and assistance under US P.L. 480. In the case of defence support, 95 per cent of the counterpart funds are owned by Pakistan and are available for uses approved by the United States, and 5 per cent are owned by the United States for use by the United States Government agencies only. In the case of aid under P. L. 480, the entire counterpart funds are owned by the United States, and may be released in instalments to Pakistan for specific development projects, in the form of loans and grants.

32. The releases from counterpart funds are subject to future agreements about which nothing can be forecast at this stage. For planning purposes what is relevant is the accrual of counterpart funds during the Plan period, after account is taken of the amount that is required for the induction of military aid and for local currency expenditures of the United States Missions in Pakistan. The accruals of counterpart funds should be matched by simultaneous releases to avoid any expansionary or contractionary influence from this source. If formal releases fall short of (or exceed) accruals in any particular year, there should be corresponding borrowings from (or retirement of debt to) the State Bank to keep the inflow and outflow of cash in balance. Such a treatment of counterpart funds may create difficulties in actual budgeting every year, especially if the formal release of counterpart funds exceeds the current accruals. However, it is not possible at this stage to predict the likely nature of such difficulties.

33. The total accrual of counterpart funds is estimated at Rs. 4,700 million, of which Rs. 1,000 million may be required for US uses and for the induction of military aid; Rs. 700 million to cover the local currency expenditure on Indus Basin replacement works; and the balance of Rs. 3,000 million will be available for development projects under the Plan. (Table 8).

TABLE 8

Accruals and releases of counterpart funds, 1960-61 to 1964-65

(Million Rupees)

Accruals		Releases (a)	
P.L. 665/138 counterpart funds (defence support)		PL. 655/138 counterpart funds (defence support)	
Arrivals of commodity aid	2,500	Induction of military aid ..	625
Customs on commodity aid	500	Five per cent ICA expenditure ..	125
		Releases for development projects ..	2,250
P.L. 480 counterpart funds		P.L. 480 counterpart funds	
Foodgrains	1,000	US uses	250
Non-food items	700	Releases for development projects	750
		Releases for Indus Basin replacement works ..	700
Total ..	4,700	Total ..	4,700

(a) The concept of "releases" used here is not the same as in aid agreements. The balance of counterpart funds, after allowing for US uses, has been taken as available for release irrespective of whether it is formally released or not.

34. *Foreign aid and loans.*—Foreign aid and loans, other than defence support and P. L. 480 aid, are expected to amount to Rs. 4,000 million during the Plan period. Commitment from the Development Loan Fund in 1958-59 was Rs. 455 million. Additional commitments will have to be negotiated for DLF and other capital assistance during the Plan period. This is discussed in Chapter 4.

35. *Local bodies.*—The institutions of Basic Democracies have recently been given increased powers of taxation as well as additional responsibilities for development work. It is too early to estimate the contribution that the local bodies may make to national development. Tentatively, it is expected that they will be in a position to undertake a development programme of at least Rs. 200 million during the Plan period.

36. *Additional taxation.*—It is proposed to raise at least Rs. 1,000 million in additional taxation during the Plan period. Actually, if other resources in the public sector fall short of expectations, it may be necessary to impose even a higher amount of additional taxation. The proposals for additional taxation are discussed in Chapter 3.

37. *Deficit financing.*—It is estimated that deficit financing of Rs. 1,000 million will be consistent with monetary stability during the Plan period. The rationale of deficit financing and the inflationary danger implicit in it are discussed in Chapter 3.

Semi-public sector

38. The semi-public sector consists of government-sponsored corporations which draw their finances both from the public and private sectors. The decision-making power of the corporations rests with a board of directors which combines representation from the Government and from private enterprise. These corporations have been set up to supplement and encourage private enterprise, not to replace it. The criteria guiding their policy must be much broader than considerations of private profitability, but this does not mean that the corporations should not be run on commercial lines. There has been a tendency in the past for some of the corporations to rely on large government loans or substantial subsidies, rather than to contribute to capital formation in the economy. It is essential that the commercial nature of the corporations be greatly emphasised and their future policies be so framed as to promote maximum efficiency and growth; their price policy should, no doubt, be guided by considerations of social gain, but the need for financing their future expansion out of their own resources must also be given due weight. The corporations should increasingly reduce their dependence on government finance by reinvestment of their own profits and through share flotations in the market.

39. It is estimated that the corporations will undertake a total investment programme of Rs. 3,250 million (Table 9). Of this, the Government is expected to contribute Rs. 1,750 million through loans and grants. It may be possible to reduce further the extent of government finance by promoting internal capital accumulation and by enlisting greater private participation. For instance, the public policy in respect of PIDC projects is to invite private financing to the maximum possible extent. Similarly, the Karachi Development Authority (KDA) is expected gradually to become a self-financing concern. The Improvement Trusts are expected to finance their programmes mainly out of sale proceeds of improved housing sites, though a significant contribution can also be expected from local bodies. It is expected that in the Plan period as much as Rs. 560 million of investment will be financed by the corporations from their own resources. This will necessitate some crucial revisions in the past practice of these corporations; for instance, the price of electricity will need to be reviewed by KESC, adequate provision for depreciation and replacement will need to be made by PIA, the economics of transport charges will need to be examined by the Transport Boards, and KDA will need to review its terms regarding interest and instalments on houses built and distributed by it.

TABLE 9

Financing of the semi-public sector, 1960-61 to 1964-65

(Million Rupees)

Corporation	Plan allocation	Sources of finance				
		Government loans	Foreign loans	Own resources	Private participation	Loans from banks
Pakistan Industrial Development Corporation (PIDC).	1,310	970	..	..	340	..
Small Industries Corporations (SIC)	410(a)	250	..	..	..	160
Karachi Electric Supply Corporation (KESCO).	190	..	150	40	..	..
Pakistan International Airlines (PIA).	196	33	98	65	..	..
Karachi Port Trust (KPT)	124	..	60	64	..	..
Chittagong Port Trust (CPT) ..	15	..	3	12	..	..
West Pakistan Road Transport Board (WPRTB).	75	..	44	31	..	..
East Pakistan Road Transport Corporation (EPRTC).	13	8	5	..	..	..
Karachi Road Transport Corporation (KRTC).	32	17	15	..	..	..
Inland Water Transport Authority (IWTA).	80	55	25	..	..	..
Karachi Development Authority (KDA).	310(b)	110	..	160	..	40
Dacca Improvement Trust (DIT) and Chittagong Development Authority (CDA).	160(c)	160	..	..	..	..
All other Improvement Trusts and Authorities.	320	130	..	190	..	..
Industrial Workers Housing Corporations (IWHC).	20	20	..	..	..	..
Total ..	3,250	1,750	400	560	340	200

(a) In addition, Rs. 90 million of recurring expenditure will be incurred, bringing the total expenditure by SIC. to Rs. 500 million.

(b) Rs. 110 million is for water supply scheme and Rs. 200 million for housing programme.

(c) Dacca and Chittagong water supply and sewerage works.

40. An investment of about Rs. 400 million is expected in these corporations from foreign sources, mainly from the DLF and the World Bank. Private participation is likely to be sizeable in the case of PIDC

projects. The figure of Rs. 340 million mentioned in Table 9 is based on past experience and is only an expectation and does not constitute a ceiling. It should be possible to associate even more private capital with PIDC projects. The corporations will need some accommodation from the banking system also. The Small Industries Corporations are expected to raise Rs. 160 million from the banking system to set up a revolving fund for advances of raw materials to small industrialists. The KDA may also have to turn to the commercial banks for a part of its financial needs.

Private sector

41. An investment of Rs. 6,000 million is expected in the private sector during the Plan period. It will be financed mainly by private savings and foreign private investment, and partly by commercial banks and government finance corporations (Table 10).

TABLE 10
Financing of the private sector, 1960-61 to 1964-65

(Million Rupees.)

Sector	Plan allocation	Sources of finance					
		Government loans	Foreign loans and investment	Self-financing	Loans from commercial banks	Loans from specialised credit institutions	Stock exchange
Agriculture	880	100(a)	..	380	50	350	..
Industry, fuels and minerals ..	2,130	..	700	900	230	..	300
Large scale industry	250	..	..	200	50	..	..
Small scale industry	550	..	330	140	20	60	..
Fuels and minerals .. .. .	..	..	..	..	..	..	..
Transport and communications ..	..	..	..	..	..	..	..
Shipping	103	..	20	83	..	..	..
Inland water transport	95	..	50	5	..	40	..
Road transport	520	..	..	480	40	..	..
Tourism	111	..	..	61	50	..	..
Housing and settlements	1,135	..	..	935	..	200	..
Other sectors	226	..	..	166	60	..	..
Total	6,000	100(a)	1,100	3,350	500(b)	650(c)	300

(a) This will be in the form of *taccavi* loans to the private sector and is shown as a capital liability of the Government. In addition, the Government will also be lending Rs. 100 million to the Agricultural Bank and cooperatives, Rs. 80 million to Pakistan Industrial Finance Corporation, and Rs. 120 million to House Building Finance Corporation. All these loans are shown as a capital liability of the Government.

(b) The commercial banks are expected to lend to the private sector a total sum of Rs. 700 million; Rs. 500 million to the sectors mentioned in the above Table, and Rs. 200 million to the semi-public sector, mentioned in Table 9. This is discussed in Chapter 3.

(c) The specialised credit institutions are expected to lend Rs. 650 million during the Plan period by raising their funds partly from the Government (Rs. 300 million), partly from the commercial banks (Rs. 100 million) and rest (Rs. 250 million) from the market. This is discussed in Chapter 3.

42. Foreign loans and investment will be forthcoming mainly for industry, fuels and minerals. It is expected that about Rs. 500 million may be channelled to private industry through the medium of PICIC. There will also be some direct investment in private industry, especially through capital imports by established foreign firms, and an investment of Rs. 110 million in the proposed oil refinery. A further investment of about Rs. 330 million is expected in oil and gas explorations. The total private foreign investment is expected to be about Rs. 1,100 million.

43. Self-financing operations will be the most important means of financing the requirements of the private sector. The growth of the capitalist sector in industry, in particular, is expected to lead to a cumulative process of self-financed industrialization. It is estimated that at present the large scale industrial sector can provide at least Rs. 200 million annually for reinvestment out of its own profits, after allowing for taxes and distribution of profits. The average tax incidence on industry is not very high: the combined incidence of income tax, sales tax and excise duties does not come to more than 30 per cent on an average, because of the liberal depreciation allowances and tax concessions enjoyed by industry. The wage bill is also a relatively small part of the total value added in industry, being less than 40 per cent. This means that a significant share of total value added accrues to the industrialist for distribution as well as for further reinvestment. The share of profits in gross national product is expected to increase during the Plan period, along with the proposed increase of about 60 per cent in value added in large scale industry. The rate of expansion in the profit share can well be higher than the increase in industrial output, as has been the experience in most of the developing countries. It is tentatively assumed that over Rs. 1,500 million of profits will be available to large scale industry during the Plan period for ploughing back into investment. The Plan also proposes to strengthen incentives for reinvestment of profits. Private industrialists are expected to purchase existing PIDC assets worth Rs. 200 million as well as to contribute about Rs. 340 million to new PIDC projects during the next five years. In addition to building up their cash reserves as their output increases. After making allowance for these factors, it is estimated that private industry will have about Rs. 900 million of investment funds at its disposal for its further expansion.

44. A substantial amount of self-financing will be needed for private housing and road transport. In the case of private housing, it is expected that rationalization of existing rates of taxation on property, removal of rent controls on new construction, special tax incentives for low-cost housing, and increasing supplies of key construction materials will bring forth substantial savings usually earmarked by individuals for owning their houses. The road transport programme contains a large element of replacement and it should be possible to finance it out of accumulated replacement funds as well as from the profits being made by private operators in this field.

45. The agricultural sector will present a more difficult problem because the traditions of reinvestment of increased productivity are not so well established. However, the Government will give direct assistance to this sector through *taccavi* loans in addition to the credit facilities extended by the Agricultural Bank, cooperatives, and commercial banks. Total assistance from these sources is projected at Rs. 500 million. It is expected that the private sector will be adequately supported by good credit arrangements as well as by the development of the capital market. This is discussed in detail in Chapter 3.

Financing of the Provincial programmes

46. A preliminary survey of the financial resources of the Centre, East Pakistan and West Pakistan highlights the fact that the present mode of federal financing will have to be re-examined if the total requirements of the federal units, both for development and non-development expenditures, are to be adequately met during the Plan period.

47. Table 11 presents a summary of the financial requirements and resources of the federal units, bringing out the magnitude and nature of the financial transfers needed during the Plan period. Both East and West Pakistan will have substantial deficits on their revenue accounts, in view of the inflexibility of their revenue receipts and the large burden of recurring liability on completed development schemes and for the servicing of development loans. The recurring liability of the development schemes completed in the First Plan and of those to be undertaken in the Second Plan is tentatively estimated at Rs. 500 million and Rs. 750 million in East and West Pakistan respectively, and the expenditure on debt servicing will amount to some Rs. 600 million and Rs. 800 million respectively.

48. The overall deficit, after considering the possibilities of additional taxation, is expected to be Rs. 900 million on revenue account and Rs. 3,310 million on capital account in East Pakistan, and Rs. 700 million on revenue account and Rs. 2,800 million on capital account in West Pakistan. The problem of financing the Provincial programmes is essentially a problem of federal financing. In overall terms, the resources to be raised should be sufficient to cover both the development and non-development expenditures during the Plan period. The problem is that of transferring the surplus funds from the Centre to the Provinces in a form which meets their needs.

49. So far as the deficit of the Provinces on the capital account is concerned, most of their capital expenditure is of a nature which will be eligible for Central loans. This means that Central loans will have to be increased from Rs. 302 million and Rs. 277 million in 1959-60 to an average of about Rs. 660 million and Rs. 560 million for East and West Pakistan respectively during the Plan period.

TABLE 11

Financing of the Provincial programmes 1960-61 to 1964-65

(Million Rupees)

	Centre	East Pakistan	West Pakistan	Total
<i>Expenditure :</i>				
Non-development expenditure	8,770	2,780	4,230	15,780
Revenue account	7,900	2,770	4,210	14,880
Capital account	870	10	20	900
Development expenditure	4,080	3,870	3,550	11,500
Revenue account	200	400	500	1,100
Capital account	3,880	3,470	3,050	10,400
Total expenditure	12,850	6,650	7,780	27,280
<i>Resources :</i>				
Revenue receipts	9,300	2,070	3,710	15,080
Capital receipts	2,740	100	160	3,000
Counterpart funds	2,500	..	..	2,500
Customs on commodity aid	500	..	..	500
Project aid and loans	4,000	..	..	4,000
Additional taxation	500	200	300	1,000
Deficit financing	1,000	..	..	1,000
Local bodies	20	70	110	200
Total resources	20,560	2,440	4,280	27,280
<i>Financial gap :</i>	7,710	-4,210	-3,500	..
Revenue account	1,700	-900	-700	100
Capital account	6,010	-3,310	-2,800	-100
<i>Financial transfers:</i>	-7,710	4,210	3,500	..

NOTE :—Table includes a payment of Rs. 1,400 million by the Provinces to the Centre on account of debt servicing. This adjustment should be borne in mind while comparing this Table with Tables 6 and 7.

50. The deficits on revenue account can be financed partly through Central grants. These grants, however, cannot ordinarily cover non-development expenditures. This raises a real difficulty. It is logical that Central assistance should be extended only for development purposes, and the Provinces be expected to expand their own revenue resources to meet their recurring needs. But adequate provision for recurring liability of development schemes is as essential to effective development programming as any other expenditure and, in the absence of suitable arrangements, there is a real danger that the facilities established by the Plan will not be fully utilized for want of operating expenses. To some extent, additional taxation can cover the deficit, but a sum of about Rs. 500 million will still be needed by East Pakistan and Rs. 200 million by West Pakistan. So far as development items on the revenue account are concerned, these can be financed by Central grants. This means that Central grants will have to be increased from Rs. 75 million and Rs. 90 million in 1959-60 to an average of Rs. 80 million and Rs. 100 million in East Pakistan and West Pakistan respectively.

51. It appears that some special arrangement will have to be made to transfer about Rs. 500 million to East Pakistan and Rs. 200 million to West Pakistan to cover their non-development liability on the revenue account. This may necessitate a revision of the Raisman Award. Or a block grant can be put at the disposal of the Provinces for the specific purpose of meeting the recurring liability of completed development schemes.

52. Apart from the problem of meeting the financial requirements of the Provinces, there is the general question of establishing the criteria that should guide Central assistance to the Provinces. The general criterion should be that any project included in the Plan should be eligible for Central assistance either in the form of loans or grants. If, however, the whole of the Provincial development programme is dependent on Central financing, it can seriously restrict the flexibility and autonomy of the Provinces in budgeting their programmes. There seems to be a strong case for revision of the Raisman Award so as to place more resources at the disposal of the Provinces during the Plan period. The Raisman Award was an *ad hoc* arrangement, and its rationale should be reviewed in the light of the present revenue resources of the Provinces and their future requirements for development and non-development expenditure.

Estimates of gross national product

53. The estimates of gross national product, used in this chapter and in the rest of the Plan, are given in Table 12. These have been prepared in consultation with the Central Statistical Office and are provisional. The projection of gross national product for the Second Plan period is based on an evaluation of the physical targets of the Plan and on the proposed time-path of investment in various sectors. These estimates should be taken only as illustrative of the kind of structural changes that are implicit in the Plan.

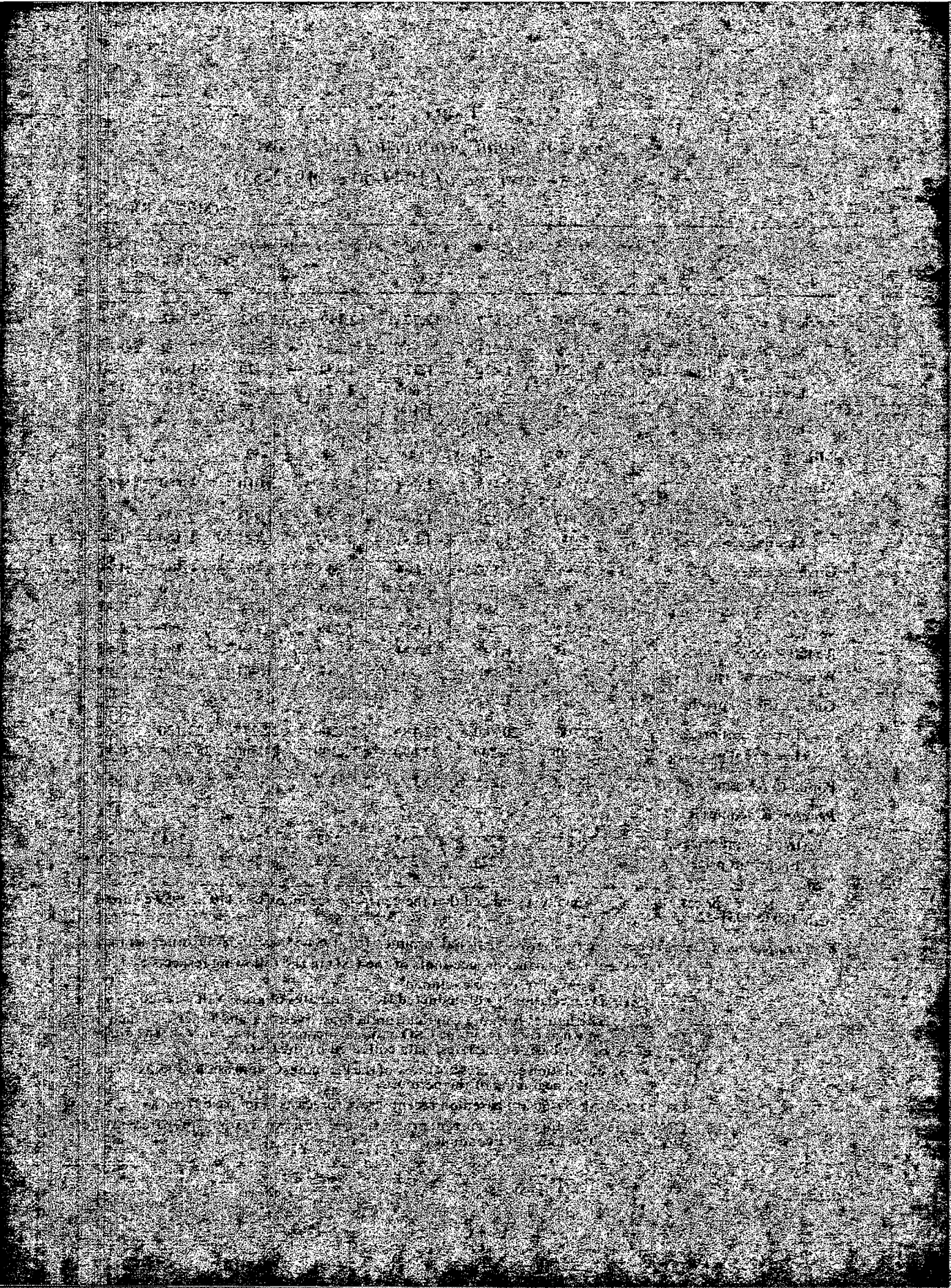
TABLE 12
Gross national product at factor cost
(Prices—average of 1949-50 to 1952-53)

(Million Rupees.)

	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60 (Estimates)	1964-65 (Projection)
Agriculture	12,407	11,877	12,778	12,449	12,102	12,647	14,390
Major agricultural crops ..	7,139	6,713	7,657	7,480	7,107	7,564	8,850
Minor agricultural crops ..	1,625	1,470	1,370	1,454	1,470	1,500	1,755
Livestock	2,584	2,597	2,609	2,623	2,636	2,650	2,780
Fisheries	1,026	1,064	1,109	859	856	900	970
Forestry	33	33	33	33	33	33	35
Mining	39	43	46	51	52	53	63
Manufacturing	2,151	2,488	2,689	2,805	3,010	3,150	4,640
Large scale	1,112	1,428	1,608	1,702	1,885	2,000	3,200
Small scale	1,039	1,060	1,081	1,103	1,125	1,150	1,440
Government	1,049	1,130	1,164	1,318	1,463	1,500	1,800
Banking	71	75	79	100	104	110	145
Transport and communications	546	565	583	609	643	680	815
Services	1,672	1,705	1,727	1,749	1,784	1,800	2,160
Rental income	1,108	1,109	1,124	1,139	1,159	1,180	1,387
Wholesale and retail trade ..	1,871	1,851	1,997	1,987	1,961	2,000	2,400
Gross national product :							
(In constant prices) ..	20,913	20,840	22,186	22,200	22,277	23,120	27,800
(In current prices) ..	14,800	18,200	22,630	22,200	24,500	25,430*	30,580
Population (in million) ..	81.3	82.5	83.6	84.7	86.1	87.5	95.2
Per capita income (Rs.):							
(In constant prices) ..	257	253	265	262	259	264	292
(In current prices) ..	182	221	271	262	285	290*	320*

*In 1959 prices. It is provisionally estimated that the general price index was 110 in 1959 compared with 100 in 1951-52.

- Explanatory notes :**
1. The estimates of gross national product for 1954-55 to 1958-59 differ from the published national income accounts of the CSO in the following respects :
 - (i) Terms of trade are excluded.
 - (ii) Depreciation is not deducted from estimates of gross value added.
 - (iii) The figures for minor agricultural crops, livestock and fisheries, which are shown as constant in the CSO national income accounts, have been adjusted on the basis of the latest data collected by the CSO.
 - (iv) Population estimates are those of the Planning Commission. Figures relate to the beginning of the period.
 2. Estimates for 1959-60 are based on recent crop forecasts and past trends.
 3. GNP figures are adjusted to current prices on the basis of a study prepared in the Institute of Development Economics.



CHAPTER 3

FISCAL AND MONETARY POLICY

APPROPRIATE economic policies must be pursued if the Plan is to be fully implemented. It is intended to move away from an extensive use of direct controls, which has tended to retard the pace of development, and to rely mainly on fiscal and monetary measures to regulate the economy. Fiscal measures can exert a powerful influence on the pattern of production, consumption, investment, saving and international trade. They can also be used to control possible inflationary pressures and to mobilise resources for development by augmenting government revenues.

2. Fiscal measures will be most effective if they are accompanied by suitable monetary policies. An inflationary situation is likely to call both for increased taxation and greater stringency in making credit available. High levels of taxation, needed to raise resources for development, may properly be accompanied by high rates of interest to encourage saving and the economical use of capital. And policies designed to encourage capital formation may depend for their execution on the development of financial institutions and on arrangements to provide finance through the capital market and the banking system.

Taxation policy

3. Tax policy will be directed to mobilizing resources for development and allocating them according to Plan priorities. The Taxation Enquiry Committee, appointed by the Government in 1958, is currently engaged in an analysis of the existing structure of taxation, with a view to suggesting necessary tax reforms. The interim reports on Central and Provincial Taxation have already been presented and are receiving consideration from the Government. The final reports of the Committee are expected to take full account of the need for additional taxation during the Plan period.

Review of present tax structure

4. Tax revenues are low, amounting to only 7 per cent of gross national product, or nearly 9 per cent of the income in the monetized sector. This is too small a proportion for the Government to be able to support an adequate development programme. Revenue raised from taxation is not sufficient to finance even the non-development expenditure of the Government, which is about 10 per cent of gross national product. If the Government is to be able to discharge the heavy responsibilities for development, in addition to carrying on its normal administrative functions, this state of public finances cannot be allowed to continue for long.

5. The yield from taxation has not shown the response that might be expected in a period of growing output. The provincial tax revenues, in particular, have been fairly inelastic. The small yield from taxes is explained partly by the limited coverage of income tax (only 0.26 per cent of the gainfully employed population pays income tax) and partly by the small yield

from agriculture, which accounts for about 55 per cent of gross national product. Revenue from excise duties has also lagged, increasing by only 240 per cent against 500 per cent increase in large-scale industrial production between 1949-50 and 1959-60. This is because excise duties are largely specific in nature, and have not been adjusted with changes in prices or extended to include many new products manufactured in the country even though the latter have often replaced dutiable imports.

6. The country is heavily dependent on indirect taxes, which account for nearly 70 per cent of total tax revenue. There has been some shift from indirect to direct taxes during the last ten years, the share of direct taxes increasing from 25 per cent of total tax revenues in 1949-50 to 33 per cent in 1959-60.

7. The incidence of taxation on various income groups, economic sectors, and regions cannot be analysed very completely at present, for lack of comprehensive studies on family budgets and on distribution of personal and regional incomes. The fragmentary data available permit, however, some broad judgments. It appears that direct taxation has borne more heavily on non-agricultural than on agricultural incomes. Indirect taxes, such as import duties, excise duties and sales tax, have fallen on both the urban and rural sectors, but their incidence seems to have been greater on the urban sector in view of its consumption pattern and its monetized character. Export duties have fallen mainly on the agricultural sector. Account must also be taken, however, of a number of other government policies which have had similar effects as the imposition of taxes and subsidies. Agriculture has in effect been taxed through control of foodgrain prices and by having to surrender to the Government all the foreign exchange earned from the export of commodities at less than the scarcity value of foreign exchange to the economy. Unlike industry, agriculture has received no special tax concessions for investment. Agriculture also had to buy domestic substitutes at much higher prices than it would have paid if imports had not been restricted for balance of payments reasons, thereby providing a highly protected market for industry. Industry, on the other hand, has in effect received subsidies. Controlled prices of foodgrains have kept wages down, and foreign exchange to industry has been made available at a price much below its scarcity value. In addition, tax concessions, liberal depreciation allowances, and tax evasion have reduced the incidence of taxation on industry. Although the transfers of income from agriculture to industry were favourable for development, they also had the effect of weakening agricultural incentives by depressing prices of agricultural produce. The fact of taxation has not been so unfortunate as the form of taxation. The same contribution from agriculture could have been obtained by increasing direct taxes on agriculture, which are now too low, while maintaining incentives for agricultural production.

8. In the past, tax policy has been guided more by the need for revenue than by the requirements of capital formation. This has meant that the taxation system has lacked a clear focus; broader economic implication

of some taxes, like export duties, were not given sufficient weight compared with their revenue-yielding aspects ; tax policy was not very extensively used as an anti-inflationary device ; and the role of taxes and subsidies remained limited, as against direct controls, in the allocation of resources.

Future tax policy

9. The tax system needs to be directed increasingly towards meeting the long-term needs of development. This will imply a greater use of taxes and subsidies to secure a desirable allocation of resources, instead of relying on a multiplicity of direct controls ; the use of taxation as a means to control inflationary or deflationary tendencies ; and the raising of more revenue to provide the means for development. The tax system will also need to be revised to broaden its coverage, make it more flexible, rationalize its incidence, and ensure the best balance between direct and indirect taxes.

10. The Plan proposes additional taxation of Rs. 1,000 million. It is hoped that the Taxation Enquiry Committee will make detailed proposals for raising this sum. In the following analysis, an attempt is made to indicate some of the considerations that should guide future tax increases, and to identify those sectors of the economy from which additional taxation can be raised :

- (i) Coverage of the tax system should be expanded in relation to national income, and the system should be made more flexible so that future economic growth may have a direct and immediate impact on public revenues. This is particularly important in the case of provincial taxation.
- (ii) In order to achieve the high rate of marginal savings required for the Plan, reliance will have to be placed on indirect taxes, particularly consumption taxes, which should capture a significant proportion of the increasing average incomes in the country. A progressive element can be introduced into these taxes by applying high rates to luxury goods.
- (iii) Direct taxes cannot be made more progressive without affecting the incentives to work and to save. The tax system should take full account of the needs of capital formation. It will be necessary to tolerate some initial growth in income inequalities to reach high levels of saving and investment. What is undesirable is a wide disparity in consumption levels. Tax policy should, therefore, be so oriented as to direct a large part of high incomes into saving and investment rather than consumption.
- (iv) "Disguised" taxation, particularly on agriculture, such as the compulsory procurement of foodgrains at fixed prices, reduces incentives to produce and invest and should be replaced by a more satisfactory system of direct taxation.
- (v) The need to raise revenue should not impede the broader objectives of the Plan. Tax policy should be closely coordinated with the development policy of the country.

Additional taxation

11. The following discussion identifies the areas from which additional taxation can be raised for the Plan.

12. *Import surcharges.*—Imports are being regulated at present through direct controls. Although these controls have been found necessary because of the general shortage of foreign exchange and the need to make the best use of this scarce resource, their larger implications have been unfortunate. These controls have often led to shortages of spare parts and key raw materials, and considerable windfall profits for importers. The consumers have generally been paying a high price for imports whose supply has been scarce, whereas the importers have been able to obtain unearned gains by securing "cheap" import licences.

13. It is desirable that a part of the windfall gains should be diverted from importers to the public coffers. This can be done by introducing a system of import surcharges. Ideally, the import surcharges should be high enough to take care of the excess market demand for broad categories of imports, to reflect the current shortage of foreign exchange, and to promote a more rational distribution of resources. Such a system can, however, be introduced only gradually; direct controls on imports will have to be retained for some time.

14. The system of import surcharges can take several forms. One such form can be to divide the import sector into various broad categories such as investment goods, raw materials, and consumer goods; another form can be to classify the imports according to varying degrees of essentiality. The allocation of foreign exchange to imports can then be made in line with broad national priorities, with the changing needs of the economy and requirements of the Plan. Import surcharges can be fixed in such a way as to bring into line demand and supply of foreign exchange for each category of import. An equilibrium between demand and supply can be reached only through a process of trial and error. A provision can also be made for refunds where necessary: for instance, if imports enter as inputs in an export industry, or if a so-called luxury good, such as a refrigerator, is required for an essential use, as in a hospital. Government imports should not be exempt from import surcharge, so that the public sector has a measure of the true scarcity value of the foreign exchange allocated to it.

15. If present import controls are replaced entirely by a system of import surcharges, the surcharges that will have to be fixed will need to be high. There may be an argument for special treatment for certain sectors of the economy, especially for the import of investment goods. It may be necessary, therefore, to operate an import surcharge system side by side with some of the present direct controls. Increasingly, these surcharges can be raised sufficiently to take care of the excess market demand for the imported category and to free various imports gradually from direct controls.

16. The objective of the import surcharge proposal can partly be achieved by suitably revising import duties. The merit of the import surcharge proposal, however, is that it concentrates attention on broad categories of imports; it avoids problems of valuation of imports since the surcharge is levied on the import licence itself; it withdraws purchasing power from the system before imports are made, thereby moderating inflationary pressures; and it helps focus attention on broad priorities in the import sector.

17. The commercial imports are around Rs. 800 million at present and are expected to increase in the next five years. The surcharge rates will vary, depending on the nature of various imports. They may vary from nil on certain categories like drugs and medicines, which are regarded as essential, to more than 100 per cent for certain consumer goods, which constitute luxury consumption. Even if the average surcharge rate is 20 per cent, it can yield as much as Rs. 1,000 million during the Plan period. This shows the potentialities of raising revenues from the import sector.

18. *Export duties.*—The case for adjusting the present export duties on jute, cotton, and tea needs to be examined very carefully. The Taxation Enquiry Committee has suggested that export duties are “retrograde in principle and discourage exports, and the objective should be to replace them eventually”. The case for their adjustment is strengthened by the introduction of the export bonus scheme for manufactured goods, and by the size of the export targets proposed in the Plan.

19. The export bonus scheme has provided a great incentive for the export of manufactured goods, but corresponding incentives are also necessary for the production of raw materials. Otherwise, an increase in semi-manufactures and manufactures is likely to occur mainly at the expense of raw material exports or adequate supplies in the home market. Basic to the success of any export drive is an abundant and increasing domestic supply of goods that can be diverted to the export market. This means that steps will have to be taken to increase the production of exportable commodities. The planned increases in cotton and jute production, of 38 per cent and 22 per cent respectively, will not be achieved without adequate incentives. Furthermore, adjustment of export duty on cotton will bring the domestic prices more in line with the international price, thereby restraining consumption at home.

20. A careful analysis is necessary to show how far the adjustment of export duties can help in increasing the production and export of raw materials. The case for abolishing or reducing the export duties seems to be much stronger in relation to raw cotton and tea than raw jute. These duties have not been abolished hitherto mainly for revenue considerations. However, as the Taxation Enquiry Committee has pointed out, in considering the question of export duties “the revenue aspect is no doubt important, but should not be allowed to override the objective of promoting exports”. Moreover, import surcharges could more than make up the reduction in government revenues on account of the adjustment of export duties. In adjusting export duties, the impact on internal prices, the loss of subsidy for cotton and

jute manufactures, and the broader implications of a transfer of income from the non-agricultural to the agricultural sector will need to be fully considered. Such consideration may point to some related policies that will have to be followed, but will certainly not nullify the necessity for the adjustment of export duties.

21. The Government is expected to realize about Rs. 700 million from export duties if these are continued at the present levels during the Plan period. Of this amount, Rs. 300 million is expected from export duty on cotton and tea. Allowance must be made for possible loss from an adjustment of export duties in considering the net additional taxation of Rs. 1,000 million during the Plan period.

22. *Excise duties.*—The rise in revenue from excise duties has not been proportionate to industrial growth, and there is a strong case for additional excise taxation. The Plan envisages a more extensive application of excise duties. There are several reasons for this. First, the Plan calls for a high rate of saving out of additional incomes; the desired austerity in personal consumption can be partly enforced through increases in excise duties. Second, as suggested by the Taxation Enquiry Committee, indigenous industries which have developed “under the protective wall of high import duties and quantitative restrictions must be taxed in order to replace the customs revenue on imports”. Third, a greater reliance on excise duties will make the tax system more flexible and responsive to economic growth, especially if these duties are *ad valorem* in nature; it will also improve the ability of the Government to check inflationary or deflationary tendencies in the economy through appropriate changes in excise duties. It is paradoxical, but true, that the higher the excise taxation and the prices of excisable commodities, the more anti-inflationary are the effects produced. This is so because consumers are left with less purchasing power to spend on other goods and services. This consideration assumes particular importance when it is recalled that the present coverage of income tax is extremely limited, and no automatic way of influencing the income flow in the economy is available to the Government. Fourth, the present exemption limit in the case of income tax is Rs. 6,000 a year, which is high compared with the average in the country. The administrative problems make it difficult to reach the average income groups in the country through the machinery of income tax, but it is necessary that persons with incomes below the exemption limit should also make some contribution to national development. Finally, more despread levy of excise duties and removal of export duties will fit in with the general Plan strategy of diverting production from domestic consumption to export. It must be remembered that excise duties are easy to collect and difficult to evade.

23. It is not possible to indicate in detail the various commodities that might be subjected to additional excise duty. It is expected that this aspect will be fully analyzed by the Taxation Enquiry Committee in its final report. The Committee has already recommended the levy of excise duty on cement

and betelnuts, and the enhancement of rates of duty on coarse cloth, tea, sugar, and vegetable products. The aim should be to bring as large a segment of the industrial sector as possible under excise duties, subject, of course, to considerations of equity and cost of collection.

24. If the coverage of excise taxation is broadened, it should be possible to raise additional revenues of Rs. 300 to 500 million through excise duties during the Plan period.

25. *Sale tax.*—Greater reliance on consumption taxes is inevitable in order to finance the Plan. Sales tax is the closest approximation to a general consumption tax. Even a small increase in the sales tax could yield substantial revenue while the ultimate burden on the consumer would be quite light. The present basic rate of sales tax is 10 per cent for most commodities. If a surcharge of 25 per cent is added to the basic rate, it could bring in as much as Rs. 350 to 400 million over the Plan period.

26. *Agricultural taxation.*—Agricultural taxation will need to be increased considerably during the Plan period because : (i) The existing land revenue and water rates bear no relation to the taxable capacity of agriculture : agricultural prices have risen several times since 1939, while these rates have hardly been changed. Actually, some settlements were made even before 1939 and commutation values were based on much earlier prices. (ii) Additional agricultural income of more than Rs. 6,000 million will be generated during the Plan period. Because a capitalistic sector has not as yet emerged in agriculture, and traditions of reinvestment of income are on the whole lacking, consumption levels are likely to rise considerably to absorb a large part of increased productivity, unless the Government steps in and takes a part of it away for development. (iii) In the absence of a good system of agricultural taxation, marketable surplus may not increase much even when production does increase. (iv) The burden of indirect taxation on agriculture will be lessened through adjustment of export duties and decontrol of foodgrains ; and (v) A good deal of expenditure is to be incurred by the Government on subsidizing fertilizers and seeds so that it is legitimate that a part of the cost should be recovered from increasing agricultural productivity. At the same time, the incentives for agricultural production will be maintained because agricultural taxation is intended to be of a nature which will not interfere with normal market incentives.

27. Gross land revenue collections (excluding water rates) in both East and West Pakistan are estimated at about Rs. 300 million at present. This is more than twice as much as was being collected in 1949-50. The increase has been made possible, however, by the collection of accumulated arrears and by the acquisition of rental interests in East Pakistan for which compensation is being paid out of extra receipts. Actually, land revenue rates have not changed much. Land revenue still constitutes only 2 per cent

of the total agricultural income in the country, and contributes a mere 16 per cent to the total tax revenues of the Government although agricultural incomes are about 55 per cent of the total national income.

28. The low yield from land revenue in West Pakistan is explained mainly by two factors : (i) a long period of settlement in most cases, varying between 30 to 40 years, and (ii) maximum ceiling of 25 per cent on the enhancement of land revenue at the time of settlement. The Taxation Enquiry Committee has suggested the reduction of the period of settlement to 15 years, and the abolition of the legal bar on the enhancement of land revenue. As an interim measure, a 25 per cent flat increase was proposed. The objective should be to make revenue from agricultural taxation more responsive to growth in agricultural output and prices, without adversely affecting the incentives for production and investment. In Japan, where in the earlier stages of economic development, transfers from the agricultural sector cumulatively fed the process of economic growth, this purpose was achieved by a land tax which was revised every five years. In this connection, the possibility of aggregating agricultural incomes with non-agricultural incomes for the purposes of income tax also needs consideration.

29. Water rates have remained fixed in most cases for the last 30 years. In West Pakistan, the Irrigation Department has been running a substantial deficit which is made up by indirect credits from Land Revenue Department. A large subsidy has been implicit in the provision of water. There may be some justification for a subsidy for specific purposes and for a specific period of time, but the continuation of such a large concealed subsidy is not justified. In general, water rates need to be raised sufficiently to cover the full cost of providing water. The price of water will still be much less than the improved agricultural productivity made possible by its provision. The West Pakistan Government has already revised water rates so as to make up a part of the deficit incurred by the Irrigation Department. The rates should be increased sufficiently to run the department as nearly on commercial lines as possible. Additional revenue from agriculture can also be raised through betterment levies and the extension of estate duty to agricultural property. The First Plan recommended that a betterment tax should be levied on lands which have received improved irrigation as a result of the construction of new barrages, but very little to this effect has been done. This recommendation is repeated, especially because large new areas are going to be brought under cultivation through the completion of a number of irrigation projects in the Second Plan period. Such taxes can increase public revenues without discouraging agricultural production or causing inequities. The imposition of death duties has played an important part in some countries in reducing inequalities between the various classes of people through gradual liquidation and distribution of large accumulations of wealth, including land ownership. Hitherto, agricultural properties have been exempt from the application of the Estate Duty Act in West Pakistan. The extent to which death duties should in future be imposed on agricultural properties will require most careful consideration.

30. The flow of additional income to the agricultural sector and the relative absence of the tradition of private saving and investment among the farmers underline the magnitude of taxation that may have to be imposed on agriculture in order to realize Plan targets for marginal savings. Additional taxation of about Rs. 500 million can be raised from agriculture during the Plan period.

31. *Direct taxation.*—Direct taxation (income tax, corporation tax, and property tax) needs to be reviewed and rationalized in the light of the final report of the Taxation Enquiry Committee. The following aspects will require particular consideration :

- (i) The existing tax concessions need to be rationalized. The justification for continuing certain tax concessions to established industry is somewhat questionable, whereas the need for tax concessions to encourage a particular location (East Pakistan or the under-developed areas of West Pakistan) may deserve consideration. All general tax concessions should be examined and made more selective and discriminating. Tax concessions should also be so adjusted as to increase the bias towards the reinvestment of profits.
- (ii) Taxes on property are currently imposed by a number of agencies (Central Government, Provincial Governments and municipalities). The consolidated incidence of property taxes needs to be analyzed, and thought given to the possibility of amalgamating various forms of property taxation, and reducing the combined burden. This is all the more important in view of the considerable increase in private house construction expected in the Plan period.
- (iii) The desirability of introducing a capital gains tax should also be considered.

32. The total additional taxation proposed above adds up to more than Rs. 1,000 million, after allowance is made for a reduction in the export duties. Should other resources for the Plan not become available for any reason, higher additional taxation may have to be undertaken than is indicated here.

Growth of tax revenues

33. As a result of additional taxation and increased revenue from existing taxes, total tax revenues will increase substantially. It is estimated that the revenue from existing taxes will increase by about 25 per cent as national income increases by 20 per cent. This is so because taxes are mainly collected from sectors which will be growing at a rate faster than the national average. Besides, additional taxation of Rs. 1,000 million will add to the growth in tax revenues. It is estimated that the Government will be capturing about

8.5 per cent of gross national product through taxation by the end of the Plan period, against 7.3 per cent at present. Table 1 below summarizes the expected growth in tax revenues.

TABLE 1

Actual and expected growth of tax revenue, 1949-50 to 1964-65
(Consolidated Central and Provincial receipts)

	1949-50 (Actuals)	1953-54 (Actuals)	1959-60 (Budget estimates)	1964-65 (Projections)	
				(a)	(b)
(Million Rupees)					
Composition of tax receipts					
Income and corporation tax ..	115	212	265(c)	400	
Land revenue	134	178	295	320	
Customs	463	401	490	550	
Excise duties	99	221	310	390	
Sales tax	149	158	285	390	
Miscellaneous	108	76	205	220	
Total tax revenue ..	1,068	1,246	1,850	2,270	2,600
Distribution between direct and indirect taxes					
Direct taxes	269	407	602	760	
Indirect taxes	799	839	1,248	1,510	
(Per cent)					
Ratio of direct taxes to total tax revenue	25	33	33	33	
Tax revenue as a percentage of gross national product in current prices.	6.1	6.9	7.3	7.4	8.5

(a) Excluding additional taxation during the Second Plan period.

(b) Including additional taxation during the Second Plan period.

(c) Excluding extraordinary collections of tax arrears.

Conclusion

34. The strategy of taxation, as outlined above, is three-fold. Firstly, excise taxation will be extended, sales tax raised and import surcharges levied to keep the increase in consumption in check and to encourage more economical use of national resources. Secondly, agricultural taxation will be increased, and direct taxation rationalized to strengthen incentives for increased production and investment. Finally, export duties will be so adjusted as to promote larger exports. The tax system will, therefore, help to strengthen the economy and raise revenues for the Plan.

Financial stability

35. One of the important aims of the Plan is to maintain a reasonable degree of financial stability. There is likely to be some increase in the general price level, but the rate of increase can be kept under control, and the adverse effects of price increases minimized through suitable policies. Before considering the problem of financial stability during the Plan period, it is necessary to review the past and present situation. Some of the important monetary indicators are given in Table 2.

TABLE 2
Important monetary indicators

	Gross national product (a)	General price index	Money supply				Index of the velocity of circulation of bank deposits
			Currency	Demand deposits	Other deposits	Total	
	(Million Rupees)		(Million Rupees)				
1949-50	.. 17,544	..	1,750	913	49	2,712	100
1950-51	.. 18,327	..	1,961	976	68	3,005	100
1951-52	.. 18,303	100	2,275	1,148	42	3,465	102
1952-53	.. 19,074	104	2,164	1,049	35	3,248	102
1953-54	.. 20,508	87	2,344	1,182	24	3,550	101
1954-55	.. 20,913	71	2,519	1,203	43	3,765	98
1955-56	.. 20,840	88	2,899	1,333	47	4,279	106
1956-57	.. 22,186	98	3,340	1,408	80	4,828	107
1957-58	.. 22,200	102	3,517	1,602	75	5,194	101
1958-59	.. 22,277	114	3,596	1,761	74	5,431	100

(a) In 1949-50 to 1952-53 average prices.

36. Money supply increased over the last ten years at an average rate of about 10 per cent per annum, whereas gross national product increased at an annual rate of about 3 per cent. This comparison is often taken to indicate the existence of significant inflation in the economy, both

open and suppressed. Such a view, however, ignores the large increase in the demand for liquidity that is possible in a growing economy, even apart from increase in output. Individuals tend to hold more cash, especially in rural areas where increase in income may precede the wide-spread growth of the banking system. Firms increase their cash holdings as output expands. The commercialization of the former subsistence sector creates a demand for more money to exchange against an unchanged output. It is not possible to ascertain how significant these structural changes have been in the past, but it is clear that a part of the increased money supply has been thus absorbed. Money supply is usually more than 30 per cent of national income in developed economies, and has a tendency to rise in relation to national income in most of the under-developed countries. For instance, money supply is about 40 per cent of national income in the United States, and about 35 per cent in the United Kingdom. In Pakistan, money supply increased from about 15 per cent of gross national product in 1949-50 to over 20 per cent by 1959-60.

37. Besides the growth in output and structural changes in the economy, a number of other factors were conducive to absorbing the increase in money that took place. The devaluation of 1955 had a significant impact on the economy, changing both the price level and the money supply to which the economy had become accustomed. Time deposits increased by about Rs. 600 million over the past decade, indicating a growing tendency to save. The growing supply of goods and services provided under foreign assistance has also helped to absorb a part of the increase in liquidity.

Open inflation

38. In the absence of relevant data it is difficult to find a good measure of inflation in the economy. No official general price index is compiled at present. A tentative index has, however, been prepared by the Institute of Development Economics. Most of the subsequent discussion is based on this. The index combines data from official and market sources and is fairly comprehensive. The results of the Institute's study are reproduced in Table 3.

TABLE 3
General price index, 1951-52 to 1958-59
(Base. 1951-52 = 100)

						West Pakistan	East Pakistan	All Pakistan
1951-52	..	..	..	..	..	100	100	100
1952-53	..	..	..	..	..	111	96	104
1953-54	..	..	..	..	..	96	78	87
1954-55	..	..	..	..	..	80	61	71
1955-56	..	..	..	..	..	92	83	88
1956-57	..	..	..	..	..	112	84	98
1957-58	..	..	..	..	..	108	97	102
1958-59	..	..	..	..	..	111	117	114

Source : Institute of Development Economics.

39. The price trends have been very different in East and West Pakistan. In West Pakistan prices have not risen much. A significant deviation from the general price trend occurred in 1954-55 when prices declined by as much as 20 per cent. This is explained by an exceptionally good crop that year : wheat production increased substantially over the previous year and wheat prices in the free market went down to the record low level of Rs. 8/15/- per maund. In 1955-56, prices returned to their normal level, and were further subject to the pressure of devaluation. There has been no perceptible increase in general prices in later years, though certain relative prices did change significantly.

40. In East Pakistan, the general price level declined by nearly 40 per cent during 1951-52 to 1954-55, and then moved up steadily, nearly doubling between 1954-55 and 1958-59. These price variations are explained largely by the fluctuations in the availability and free market price of rice, and partly by the growing pressure of monetary demand on limited supplies of goods and services. East Pakistan can be truly characterized as a "rice economy" because the production and total availability of rice condition most of its economic indicators, including the general price level. The weight assigned to rice is over 80 per cent in the study on inflation noted above. There is, however, also an indication that increasing money supply has begun to exert pressure on the price level in recent years. The availability of rice has been around its "normal" level during the last three years, any fall in domestic production being made up by imports from abroad and from West Pakistan, but prices have continued to rise. One reason for this is the increasing tempo of development expenditure in East Pakistan, the long gestation period of most of the development projects and the consequent inflationary pressures in the absence of any large balance of payments deficits which might have relieved East Pakistan of some of its excess liquidity. Prices of similar goods have generally been higher in East Pakistan than in West Pakistan, the difference in prices sometimes far exceeding the cost of transport and distribution between the Provinces. This shows that because of imperfections in the distribution system especially shipping shortage widely different price trends were able to rule in the two regions of the same country.

41. This analysis of the general price index reveals that the problem of inflation is more serious in East than in West Pakistan. In West Pakistan, the general price increase has been even less than that experienced currently in most other countries of the world. East Pakistan, however, is subject to serious inflationary pressures which have been confined to the Province rather than spread out more evenly over the entire country. More important than the general price increase is the nature of this price increase. Food-grain supply plays a major role in determining the general price level. The role is larger in the case of East Pakistan (rice having over 80 per cent of the

total weight) than in West Pakistan (wheat having about one-third of the total weight). East Pakistan is a less diversified and more exposed economy compared with West Pakistan where the pattern of production is becoming more diversified because of increasing supplies of manufactured goods from domestic industries. The correlation between the increase in money supply or deficit financing, and the increase in general prices, has been far less obvious in the past than between the supply position of foodgrains and the general price level. Statistical study of past inflationary pressures reaffirm the commonly-held belief that the crux of inflationary problem in Pakistan is the maintenance of an adequate supply of foodgrains through domestic production and, when necessary, through liberal imports. It also refutes the prospect of hyper-inflation in such an economy as that of Pakistan. In fact, the average money wage rate seems to have stood constant around Rs. 1,000 per annum in recent years. The Censuses of Manufacturing Industries, from which this information is taken, are perhaps not very reliable, but the general evidence shows that the nature of inflationary problem in Pakistan is very different from the type of wage-price spiral experience in developed countries.

Suppressed inflation

42. While there does not seem to be any evidence of open inflation in the economy, it must also be considered whether the rapid increase of money supply in the last few years, unaccompanied by an equally rapid increase in national income, has created some liquidity overhang in the economy. It is not possible to say what the domestic price level or balance of payments position will be in a relatively freer economy, because at present some of the imbalance in the economy is being suppressed through controls on domestic prices and on foreign exchange. A good estimate of excess liquidity is difficult in any circumstances, depending as it does on assumptions regarding monetization of the economy, hoarding and the level of prices desired. A very rough estimate is, however, attempted here, because it is important to determine the safe limits of deficit financing in the Plan, and to move towards the freer economy that is being advocated in the Plan.

43. Money supply stood at about Rs. 4,000 million towards the end of 1955 after the price level had partially adjusted to the devaluation of August 1955, and before the massive injections of deficit financing took place. Since then, national income in the monetized sector seems to have increased by about 15 per cent. If money supply had increased at the same rate as output in the monetized sector, an increase of about Rs. 600 million would have resulted. Actually, money supply increased by about Rs. 1,600 million, which might appear to indicate excess liquidity of the order of Rs. 1,000 million. Such a measure of excess liquidity, however, bears little relation to the current position. As noted above, several structural changes are taking

place that increase the demand for money. Moreover, there has been a general price increase of about 25 per cent since 1955, which has absorbed much of the apparent excess liquidity.

44. Another way of looking at this problem is to locate the excess liquidity in the economy, determine what type of pressures it is exerting and decide whether it is likely to become active. Here the evidence is fragmentary. The banks were carrying excess reserves of about Rs. 150 million until October 1959, but the position is gradually becoming more normal and the excess reserves have almost disappeared. Another indicator of excess liquidity is that recent flotations on the stock exchange have been oversubscribed many times; speculative tendencies in the market and liberal bank accommodation seem, however, to have encouraged this trend. Restrictions have since been placed on the margin of advance by the banks against the security of old and new shares. Time deposits are somewhat swollen at present, and can be made liquid if holders so desire. But the growth in time deposits could also be taken as an indication of increase in savings. Moreover, these deposits can be turned into cash only after a considerable timelag. The fragmentary analysis that is possible from available data confirms, therefore, that although excess liquidity exists in the economy, its extent is probably not great.

45. The problem of excess liquidity can be dealt with by suitable policies. So far as excess liquidity within the banking system is concerned, it can be frozen simply by a change in the reserve requirements of the commercial banks. The present statutory reserves are 2 per cent of time deposits and 5 per cent of demand deposits. These can be suitably raised by the State Bank. Excess liquidity in the rest of the economy can be withdrawn by various devices, such as by requiring prior deposits on import licences, or by funding some part of the public debt, or by a stabilization programme of liberal imports for a short period at high surcharges. Actually, price increases consequent upon the decontrol of foodgrains are likely to absorb a part of the present excess liquidity. The problem may remain more urgent in East Pakistan than in West Pakistan.

Safe limits of deficit financing

46. The Plan proposes deficit financing—that is, borrowings by the Government from the banking system—of Rs. 1,000 million. This level of deficit financing can be compared with actual deficit financing during the First Plan period of roughly Rs. 1,500 million in relation to an estimated increase in gross national product of 11 per cent. In the Second Plan, deficit financing of Rs. 1,000 million is proposed in the face of an expected increase of 20 per cent in gross national product. Thus, deficit financing in the Second

Plan period will be smaller than in the First Plan, even though the increase in output is expected to be much higher.

47. The question still arises whether the consequent increase in money supply will lead to inflationary pressure. The increase in money supply that is consistent with price stability depends on (i) increase in national income, (ii) increase in monetization of the non-monetized sector, and (iii) increased demand for cash hoards by individuals and firms. Such an approach indicates, however, only a barrier which should not be crossed rather than a precise estimate of the non-inflationary, monetary requirements of the economy.

48. National income is expected to increase by 20 per cent over the Plan period. It is not possible to predict how the monetized sector will behave during 1960-65. Some of the proposed increase in agricultural output will be consumed on the farms, thus increasing the absolute size of the non-monetized sector. Land reforms in West Pakistan may also encourage this trend by splitting some of the commercial holdings into subsistence holdings. On the other hand, decontrol of foodgrains, and the consequent higher prices for agricultural production, are expected to increase the marketable surplus of the farmers. Improvement in transport facilities may also result in commercializing a part of the subsistence sector. Furthermore, an increase of about 60 per cent is planned in value added in large scale industry. On balance, the monetized sector can be expected to grow at a rate faster than the national income. Apart from the growth in the monetized sector, there will be increased demand for money on account of a considerable increase in goods and services supplied under foreign assistance, and demand for cash by individuals and firms.

49. An increase of around 25 per cent in money supply can, therefore, be regarded as tolerable over the Plan period. It must again be emphasized that this should be considered as a flexible limit and the need for liquidity should be assessed from time to time in the light of current inflationary or deflationary tendencies.

50. Money supply can, therefore, be increased from about Rs. 5,900 million in March 1960 to Rs. 7,300 million by the end of the Plan period, in line with the estimated requirement of liquidity. A part of this increase in money supply will result from the deficit financing operations of the Government and a part of it from the operations of the banking system. The accumulation of time deposits in the banking system is expected to provide an offset for some of the expansion in money and credit by the Government and the commercial banks. Time deposits have been increasing at the rate of Rs. 50-60 million annually in recent years, and are expected to increase by Rs. 300 million over the Plan period, as a result of the growth in incomes. The monetary position is summarized in Table 4.

TABLE 4
Causative analysis of money supply

(Million Rupees)

	First Plan (four years)			Second Plan		
	June 1955	June 1959	Increase or decrease	March 1960	June 1965	Increase or decrease
Money supply	3,906	5,566	1,660	5,900*	7,300	1,400
Causative factors						
<i>Government sector</i>						
Total borrowing from the banking system			2,116			
Accumulation of counter-part funds			-669			
Net effect			1,447			1,000
<i>Domestic private sector</i>						
Total bank credit			374			700
Accumulation of time deposits			-234			-300
Net effect			140			400
<i>Foreign sector</i>						
Balance of payments			67			Nil
Errors and omissions			6			Nil

*Provisional

Inflationary danger

51. The deficit financing proposed in the Plan is in line with the expansion in money supply that is regarded as safe and non-inflationary. The danger of inflation must, however, be recognized in any developing economy. To undertake such a sizeable programme as contemplated in the Plan, without developing any lags in the flow of output or some pressure on prices, is almost impossible. It is necessary to recognize that a potential inflationary danger does exist in a growing economy; to develop sensitive indicators for an advance warning of its imminence; to find out its implications for critical sectors of the economy, such as for saving, investment, consumption and balance of payments; and to be prepared with appropriate policies to meet the inflationary threat, should it emerge.

52. There are several factors indicating that an upward movement in prices may take place, despite the fact that the proposed amount of deficit financing seems consistent with price stability. First, the Plan requires an increase of about 60 per cent in domestic savings by the end of the Plan period. To achieve this, as much as 25 per cent of the increase in *per capita* incomes will have to be channelled into investment. If the marginal propensity to consume is higher than assumed in the Plan, pressure will develop to consume goods and services which according to the Plan ought to be saved and invested. Second, it will be difficult to time deficit financing to ensure that increases in money supply exactly coincide with the increases in supply of goods. In the First Plan period, nearly Rs. 900 million of deficit financing took place in only two years, 1957-58 and 1958-59, which were not even years of good crops. The proposed deficit financing during the Second Plan period will be consistent with price stability only if, through effective planning, successive doses of deficit financing coincide with favourable crop prospects. It is not always possible to manage such a fine adjustment in actual practice, because of the uncertainties of weather and financial pressures at certain times. Third, there are several time lags between the initial investment expenditure and the emergence of the final output in the market. This danger is greater in East Pakistan where an acceleration of nearly 170 per cent is proposed in development expenditure, where the investment programme is largely devoted to the creation of economic and social overheads which have a long gestation period, and where rice production will remain of crucial significance throughout the Plan period. In West Pakistan, better utilization of existing industrial capacity and shorter gestation period of some of the projects will reduce this danger.

53. It is not possible at this stage to analyze fully the implications of expenditure on the Indus Basin replacement works. The total expenditure proposed during the next five years on these works is about Rs. 2,430 million. Of this, Rs. 670 million is to be spent in local currency by Pakistan and the rest is to be contributed by foreign governments. It is expected that the rupee resources generated by assistance under P.L. 480 will also take care of the local expenditure on the replacement works, so that no inflationary pressures need emerge on account of the mode of financing of these works. There is, however, the danger of pressure on wage rates because of the big increase in demand for labour for construction. This may partly be a problem of lack of mobility; an abundant supply of labor is expected to be available in the rural areas of West Pakistan, but specific shortages may develop, leading to some wage increase in particular areas. This highlights the need for careful manpower planning to ensure adequate supplies of labour at the ruling wage rate.

54. Finally, the recent decision of the Government to decontrol food-grains must be taken into account. This decision is necessary in order to stimulate production. It may, however, result in some rise in the price level. The ceiling price fixed for wheat is about 25 per cent more than the present controlled price, which shows the extent to which prices can rise.

It is hoped, however, that the prospects of a good crop in 1960, reserve stocks of wheat built from P.L. 480 supplies, and increased future production will limit the increase in prices. The problem of decontrolling rice in East Pakistan will be more difficult because stocks cannot be accumulated out of foreign aid and the internal communication and distribution system is not as efficient as may be. The inflationary threat posed by a policy of decontrolling food-grains will, therefore, have to be watched very carefully.

Policy against inflation

55. The development programme is expected to place considerable strain on the resources of the country, and may give rise to inflationary forces the extent of which cannot be predicted. Much will depend on movements in world trade, on the rate at which the private sector develops, and above all on the speed with which output can be increased. If output increases more rapidly than has been assumed, it may be possible to increase development expenditure in order to take up unused resources. If, on the other hand, output lags or other unfavourable factors appear, it may be necessary to reduce demand, and to take anti-inflationary action. The possibility cannot be excluded that the economy may change quite rapidly from conditions of adequate resources to conditions of scarcity. A good or bad harvest will make a critical difference to the stability of the economy.

56. It will not be easy to recognize sufficiently in advance how economic conditions are moving, and to take appropriate action to deal with them. Harvest prospects will need to be borne in mind at all times, and crop estimates carefully examined as likely indicators of inflationary or deflationary pressures. But no single set of statistics will be a sufficient indicator of movements in the economy. It will also be necessary to devise a reliable and comprehensive index of internal price movements, based on up-to-date data.

57. In analyzing price movements in the light of available data, it will be necessary to decide whether they stem from permanent or temporary causes. Little adjustment of government policies may be needed in response to a slow rise in prices, or to a sharp rise which is not expected to persist. But a large rise in prices with the appearance of a long term trend might necessitate adjustments in government policies. The first aim should be to combat inflation by increasing taxation. Only if this, even though vigorously pressed fails to bring stability, should a cut in development expenditure be considered. In such circumstances, first consideration should be given to reducing public sector programmes. It is the intention of the Plan to foster the growth of private enterprise and initiative and to keep public sector development to those activities which are needed to promote and support growth in the private sector. It would be unfortunate if any emerging stringency in available resources were made to fall on the private sector activity; reductions in the private sector operations should be made only as a last resort.

58. The annual development programmes present a regular opportunity to consider the size and composition of the programmes in relation to available resources and to modify them accordingly. It is important that all adjustments of this kind should be timely, for programmes cannot be changed with impunity and taxation measures take sometime to put into action.

59. Fiscal policy will be the principal means of controlling the economy and of preserving its financial stability. An increase in excise taxes is likely to be the most effective way of limiting demand in an inflationary situation, and although excise taxes themselves raise prices of the goods taxed, such increase will be far outweighed by the deflationary effects of a transfer of purchasing power to the Government.

60. It will be necessary to supplement fiscal policy with appropriate monetary policies and techniques. In inflationary conditions, credit can be curtailed in a number of ways, or can be made more expensive. The State Bank may find it expedient to increase the Bank Rate, to discourage borrowing, and at the same time to alter reserve requirements, particularly if there are surplus reserves in the banking system, in order to force scheduled banks to curtail their lending. If conditions are favourable, the State Bank may dispose of government securities in order to reduce the liquidity of the system, or government funding loans may be floated. Prior deposits on application for import licences may also be used to mop up excess liquidity. If, on the other hand, resources in the country are not being employed to full capacity, credit controls can be relaxed, and increased finance made available for desirable projects.

61. Special measures are being taken to protect the economy from instability arising from harvest fluctuations. The Government, with the assistance from the United States, has decided to establish a stockpile of wheat and to buy and sell wheat so as to keep its price within certain specified limits. Although the price of wheat can vary within these limits, both producers and consumers will be protected from extreme fluctuations. This policy will serve to ensure a considerable degree of stability in the cost of living in West Pakistan, though the initial effect may well be an increase in the wheat price. It is desirable that the use of wheat should be encouraged in East Pakistan also, particularly at times when rice is scarce and costly.

62. In the interest of stabilizing rice prices in East Pakistan, a buffer stock should be established for rice on the same lines as for wheat. A major obstacle lies in the difficulty of securing adequate supplies of rice for this purpose. The United States has no surplus stocks of rice, and it is difficult to obtain supplies from other sources because of the resulting strain on the balance of payments. In order to offset inflationary pressures in East Pakistan, it is essential further to develop a free flow of goods from West to East Pakistan. Shortage of shipping has been one obstacle to this process, but the shortage has been largely overcome and will be further relieved during the Plan period. Policies will be adopted to facilitate and encourage trade between the Provinces.

63. It is proposed that price controls be eliminated wherever possible, since they are difficult and costly to administer, and discourage production. But in the interest of maintaining financial stability, it may be necessary at times to influence or directly control the prices of certain commodities, in addition to wheat, rice and certain types of cloth. These might include sugar and tea. It is hoped, however, that increased production of all these commodities will render price control unnecessary, except as an intermittent and emergency measure.

64. The anti-inflationary policy, therefore, involves five major steps : (i) maintenance of adequate foodgrain reserves ; (ii) use of taxation to siphon off purchasing power ; (iii) greater use of monetary policy, including interest rates and credit policy, than in the past ; (iv) effort to increase supplies of goods and services ; and (v) price controls in the last resort but for very few essential commodities and for very short periods.

Price assumptions for the Plan

65. It is assumed that measures will be taken to ensure that there is no rapid and prolonged rise in prices during the Plan period. But some increase in prices is inevitable in a growing economy and it is not possible to freeze prices at any predetermined level. The decontrol of wheat, which is necessary in order to increase output, is likely to lead to some increase in the price level before the Plan comes into operation. Fluctuations in prices are also to be anticipated. In any single year, because of bad harvests or for other reasons, prices may rise steeply ; on the other hand, good harvest may have the effect of reducing the price level well below its customary level.

66. The development programme has been drawn up generally in terms of the prices ruling in 1959. But the programme is conceived in physical terms : it represents specific schemes and purchases of specific amounts of goods, raw materials, and labour. If prices rise, these inputs will cost more, and correspondingly more will have to be provided in money terms to buy them. If this is not done, the real development effort will be cut below the level intended in the Plan. The Plan must be implemented in physical terms, not merely in terms of financial expenditure. In order to ensure that adequate financial provisions are made, the annual development programmes will have to be adjusted upwards in money terms to take account of any increase in prices over the base levels of 1959.

67. A further reason for watching the increase in the cost of executing programmes is that the Government revenues will have to be scrutinized to ensure that they increase in line with prices. Unless this is done, fiscal resources will be inadequate. Receipts from some taxes will increase automatically, but specific taxes will have to be increased periodically in order to maintain their real incidence. Particular attention will have to be devoted to receipts from public services under government control. In the event of a rise in prices, the charges of railways, the post office, and various public corporations may have to be increased in line with rising costs to ensure that

these sectors make their due contribution to government revenues. Particular attention will also have to be paid to making adequate provisions for depreciation. In times of rising prices this is not always done.

68. The prices of development imports may also rise during the Plan period. This will increase the foreign exchange costs of the Plan. The "Buy American" policy, if strictly enforced in the administration of the Development Loan Fund, will further raise the foreign exchange component of the Plan. It is not possible to make adjustment for these factors in advance. The requirement of foreign aid and loans is shown in terms of 1959 prices; if prices increase, these requirements will increase correspondingly.

Credit policy

69. It is not possible to estimate, with complete certainty, the additional credit requirements during the Plan period. An approximate idea of the credit needs can, however, be formed by an analysis of the financial requirements and the sources from which these requirements are to be met. The position is summarized in Table 5.

TABLE 5
Financial requirements and sources, 1960-61 to 1964-65

						(Million Rupees)	
<i>Requirements</i>							
Investment in the private sector	..	..	..	..			6,000
Investment in the semi-public sector (public corporations)	..	..	..	..			3,250
					Total	..	9,250
<i>Sources</i>							
Government loans to the private sector (<i>taccavi</i> loans)	..	..	..	..			100
Government loans to the semi-public sector	..	..	..	..			1,750
Foreign investment in the private sector	..	..	..	..			1,500
Self-financing by individuals and firms	..	..	..	..			4,250
Commercial banks	..	..	..	..	..	..	700
Specialized credit institutions	..	..	..	..	..	..	650
Stock exchange	..	..	..	..	..	..	300
					Total	..	9,250

70. The last four sources of finance, namely, self-financing, commercial banks, specialized credit institutions, and the stock exchange are closely inter-related. The estimates for each one of them should be regarded as flexible and less firm than the aggregate from all of them put together. It is possible that commercial banks, specialized credit institutions and the stock exchange may be able to mobilize a larger volume of savings than indicated in the above Table, which is not unlikely if the growth of the banking habit amongst the people and of corporate activity is more rapid than in the past. This would mean that the amount provided through self-financing would be

smaller. On the other hand, reliance on self-financing may have to be greater if the financial institutions are unable to mobilize resources on the scale indicated in the Table.

71. According to the above estimates, the commercial banks, the specialized credit institutions, and the stock exchange are expected to provide Rs. 1,650 million during the Plan period. The commercial banks and the specialized credit institutions are the principal sources of credit for the private sector. The total additional credit by these sources and the uses to which it was put during the period from 1955-56 to 1958-59 are summarized in Table 6.

TABLE 6

Sources and uses of additional credit, 1955-56 to 1958-59

		(Million Rupees)					
		1955-56	1956-57	1957-58	1958-59	Total	Annual average
<i>Sources</i>							
Commercial banks	..	59	194	83	41	377	94
Specialized credit institutions	..	56	56	65	64	241	60
Total	..	115	250	148	105	618	154
<i>Uses</i>							
Agriculture	..	29	24	52	64	169	42
Industry	..	103	60	97	-3	257	64
Transport	..	-7	1	9	-4	-1	Nil
Construction	..	6	3	24	13	46	11
Other services	..	-16	162	-34	35	147	37
Total	..	115	250	148	105	618	154

72. The additional credit provided from 1955-56 to 1958-59 averaged around Rs. 154 million per annum, of which Rs. 94 million was provided by the commercial banks and the balance by the specialized institutions which have become increasingly important in meeting the credit requirements of the economy. Industry availed of more than 40 per cent of the total additional credit during this period. This was consistent with the tempo of industrial development. Agriculture received a little over one-quarter, which was almost entirely from specialized credit institutions, namely, Agricultural Development Finance Corporation and the cooperatives, the contribution of the commercial banks being very small. Construction and transport sectors did not get adequate credit facilities, although the House Building Finance Corporation provided over Rs. 45 million for private construction purposes. The advances to commerce and other services fluctuated, depending

upon the accumulation and depletion of commercial inventories and other factors.

Commercial banks

73. It is estimated that the commercial banks will provide additional credit amounting to Rs. 700 million during the Plan period. Outstanding loans and advances by the commercial banks increased from Rs. 723 million in June 1955 to Rs. 1,100 million in June 1959, representing an average annual increase of about 12 per cent. A further increase of Rs. 700 million during the Second Plan period represents more or less a continuation of the past trend, and, therefore, appears to be realistic. In fact, as a result of the development of the banking habit, the increase may well be larger than this. The pattern of additional credit to be extended by the commercial banks is indicated in Table 7.

TABLE 7
Additional loans by commercial banks, 1960-61 to 1964-65
(Million Rupees)

	1955-56	1956-57	1957-58	1958-59	Annual average (1955-56 to 1958-59)	Annual average Second Plan	Total Second Plan
Agriculture	Nil	-2	12	17	7	10	50
Industry and transport	83	42	98	-14	52	100	500 (a)
Other sectors	-24	154	-27	38	35	30	150
	59	194	83	41	94	140	700

(a) Of this, about Rs. 100 million may be channelled to industry and transport through the medium of PIFCO.

74. The increase of credit for various sectors, as shown in the above Table, is illustrative and is intended only to indicate how credit requirements could be met during the Plan period. The additional credit for industry will have to be substantially larger than the average increase in the past, due to the accelerated pace of industrialization envisaged during the Plan period. The credit for industry will be for working capital requirements and the commercial banks should be able to accommodate these short term needs. Agriculture poses special problems of credit, which are best dealt with by extending the facilities of specialized credit institutions rather than by making the commercial banks go into this sector. The Plan proposes a considerable expansion in the role of specialized agricultural credit institutions; no significant increase in agricultural loans is expected from commercial banks.

75. Apart from meeting the credit requirements of the various sectors, there are several other aspects of the activities of the commercial banks which will need attention during the Plan period. The Credit Enquiry Commission has pointed out three special problems in the field of commercial banking: (i) the sectoral distribution of bank credit is too heavily weighted in

favour of industry and commerce, with other sectors enjoying poor credit facilities. (ii) There has been a concentration of bank credit in the hands of a few individuals and firms. Thus, on 31 March 1959, 63 percent of the total bank credit went to only 222 accounts in the form of advances of Rs. 1 million and above ; advances to borrowers of small means did not exceed 6 per cent of the total credit spread over more than 37,275 accounts. (iii) The geographical coverage of the banking system is inadequate. Pakistan has only one bank office per 150,000 of population as against one bank office per 7,000 and 4,000 of population respectively in the United States and the United Kingdom. Furthermore, 157 out of a total of 247 important marketing centres possess no banking facilities at all, such facilities being particularly poor in East Pakistan where lack of an adequate financial super-structure is acting as a serious impediment to economic growth.

76. It may be necessary for the State Bank to assure itself that sufficient credit is made available by the commercial banks to small entrepreneurs. It is to be expected that large concerns will be the principal users of credit but the credit needs of the small man must also be met as he can make a significant contribution to economic development.

77. Some increase in the number of branches operated by the scheduled banks is certainly required : these have already increased by 126 during the last five years, from 246 in 1954 to 372 in 1959. A comparable expansion may be required during the Plan period. The target of 250 more offices by 1965, as suggested by the Credit Enquiry Commission, seems to be reasonable. The main need, however, is not so much to establish additional offices as to make sure that banks (and other financial institutions) are located in centres of economic growth or where economic growth would take place if adequate financial institutions were provided.

Specialized credit institutions

78. In order to fulfil the special credit needs of certain sectors, a number of finance corporations have been established by the Government. These include the Agricultural Development Finance Corporation (ADFC), the Agricultural Bank, the Pakistan Industrial Finance Corporation (PIFCO), the Pakistan Industrial Credit and Investment Corporation (PICIC), and the House Building Finance Corporation (HBFC). In addition, cooperative societies and banks exist to meet the credit requirements of agriculture.

79. The justification for establishing specialized credit institutions is that these can offer services which are not readily furnished by commercial banks. Such services may include : borrowing on a short-tem basis from commercial banks in order to provide medium or long-term finance for industry ; providing finance for trades and industries where specialized knowledge and skills are needed ; financing enterprises which, while offering good prospects and contributing to development, involve higher risks than commercial banks feel able to assume ; and providing foreign exchange to industry.

80. The government finance corporations have undertaken and fulfilled some of these functions, but their performance leaves much to be desired. Some of these Corporations have been lending to a few established concerns rather than to new enterprises. Generally, the corporations have relied heavily on government finance and no special effort has been made to raise deposits or mobilise domestic savings for purposes of re-lending. By and large, the corporations have tended to become merely a channel for distribution of government credit to various sectors at subsidised rates. There is need, therefore, for emphatic reiteration of the purposes for which government finance corporations were established and to ensure that the corporations fulfil these purposes.

81. A large expansion is proposed in the operations of the specialized credit institutions during the Plan period. It is envisaged that these institutions should extend additional credit at more than twice the average rate during 1955-56 to 1958-59. The position is shown in Table 8.

TABLE 8

Loans by specialized credit institutions, 1960-61 to 1964-65

(Million Rupees)

	1955-56	1956-57	1957-58	1958-59	Annual average 1955-56 to 1958-59	Annual average Second Second	Total Second
Agricultural Finance Corporation (ADFC)	2	3	7	13	6	} 30	150
Agricultural Bank	(a)	(a)	(a)	3	(a)		
Cooperative	27	22	33	30	28	40	200
Pakistan Industrial Finance Corporation (PIFCO) ..	13	19	10	9	12	20	} 100(c)
Pakistan Industrial Credit and Investment Corporation (PICIC) ..	..	..	..	..	..	..
House Building Finance Corporation (HBFC) ..	14	12	15	9	13	40	200
Total ..	56	56	65	64	60(b)	130	650

(a) Started operations in 1959.

(b) Excluding local currency loans by PICIC.

(c) PIFCO and PICIC are expected to provide total additional rupee finance amounting to Rs. 200 million. This will include Rs. 100 million to be borrowed by PIFCO from commercial banks. As this amount has been included in the finance to be provided by the commercial banks, it has been excluded from this table to prevent double counting.

82. *Agricultural Development Finance Corporation and Agricultural Bank.*—During the last eight years of its existence, the additional credit extended by ADFC has not exceeded Rs. 6 million per annum, which is negligible in relation to needs for agricultural credit. The Agricultural Bank has been established recently and has not so far started its operations on any considerable scale. The two institutions are entrusted with similar functions, with separate geographical jurisdiction. This arrangement presents no special advantage, and it seems desirable to simplify the agricultural credit machinery by merging them into a single institution in the immediate future, as has also been suggested by the Credit Enquiry Commission. It is further proposed that a sum of at least Rs. 150 million should be channelled to agriculture through the amalgamated institutions. The Agricultural Bank should attempt to mobilize savings either in the form of deposits or by floating equity shares. The deposit rates will have to be fairly high to attract savings from the market. This will also call for a revision in the present lending rate of 5 per cent. This subject is discussed in some detail in Chapter 7.

83. *Cooperatives.*—The additional loans extended by cooperative societies and banks have averaged around Rs. 28 million per annum during the last few years. It is necessary that the rate of lending to agriculture by the cooperatives should expand during the Plan period to at least an additional Rs. 200 million. A comprehensive account of the cooperative movement will be found in Chapter 7.

84. *Pakistan Industrial Finance Corporation.*—PIFCO has been lending a little over Rs. 10 million per annum on an average in the last few years. As much as 66 per cent of its advances have been to the textile industry. Also, there has been a tendency towards a concentration of its loans in favour of a limited number of borrowers. Its role has been to stand as an intermediary between the banking system and the industrial borrowers, by obtaining loans on short-term basis to provide some long and medium-term loans.

85. PIFCO should act more as a development bank, and less as a mortgage bank. The Corporation should lend not only against security of existing assets but also against prospective assets, so as to encourage new enterprise. It could also subscribe to the equity of private limited companies. As recommended by the Credit Enquiry Commission, it should concentrate its activities on inland water transport and mining since no adequate credit facilities exist in these sectors at present; specialized knowledge will be required for providing credit to these sectors; and a considerable expansion of investment will be called for in the Plan. Some of the other industries which deserve special attention are engineering, shipping, pharmaceuticals, cement and various export industries.

86. It is envisaged that PIFCO will lend about Rs. 150 million during the Plan period. It may obtain Rs. 80 million from the Government, borrow about Rs. 50 million from the banking system, and raise the balance through deposits or equity finance. It may also be necessary for PIFCO to obtain a line of credit in foreign exchange from PICIC to strengthen its lending position and to supplement the role played by PICIC in the private sector.

87. *Pakistan Industrial Credit and Investment Corporation.*—The primary objective of PICIC is to channel to private industry foreign exchange obtained from the Development Loan Fund, the World Bank and other sources. It has been underwriting foreign loans and thereby facilitating the inflow of foreign investment in private industry. Its current scale of operations is about Rs. 50 million per annum ; and the expectation is that PICIC will be in a position to lend considerable amounts of foreign exchange to private industry during the Plan period.

88. *House Building Finance Corporation.*—Established in 1952, HBFC has been lending Rs. 10—15 million annually. Its maximum loan limit is Rs. 40,000 for individuals, maximum period of repayment 15 years, and rate of interest 6 per cent. Borrowers are required to invest initially 20 per cent of the estimated cost of the building and land. The corporation has been entirely dependent on Government finance, and has already disbursed credit in excess of its paid up capital of Rs. 50 million.

89. The Plan provides for a considerable expansion in low cost private housing. This will be made possible only if HBFC enlarges the scale of its operations and concentrates on low cost construction. It is expected that HBFC would lend about Rs. 200 million for this purpose during the Plan period. It may obtain Rs. 120 million from the Government, and raise the balance of Rs. 80 million through deposits or equity finance. As proposed by the Credit Enquiry Commission, HBFC should lower its maximum limit for loans to Rs. 20,000. The loans should be more widely dispersed geographically. In order to restrict luxury construction, maximum cost per square foot may be prescribed by the Corporation as one of the necessary conditions of its loans. There may also be a case for the Corporation to build its own housing units and to sell them on an instalment basis.

Stock exchange

90. Since the establishment of the Karachi Stock Exchange in 1949 membership has risen from 9 to 167 and the number of shares listed total 71 at present. The Dacca Stock Exchange started functioning in 1956. The stock exchange has not made a very significant contribution to capital formation. It contributed only about Rs. 100 million to the total capital of Rs. 230 million which was floated on it by new companies from 1955 to 1959.

91. The limited role played by the stock exchange in mobilization of savings from the public can be attributed to several factors, such as (i) absence of well organized stock exchanges in places other than Karachi ; (ii) reluctance of most public limited companies to use the facilities of the stock exchange for raising funds ; and (iii) small proportion of capital stock offered to the public even in the case of companies which float their stock on the market.

92. It may be necessary to establish new stock exchanges at Lahore and Khulna during the Plan period. As industrial output expands and companies enlarge their activities, it will become increasingly difficult for them to operate without stock exchange quotations of their shares. This will present little difficulty for the large companies whose shares can command a ready market ; but the small or medium sized companies, growing at a faster rate than the average, are likely to experience difficulties in raising sufficient capital and attaining a size where stock exchange quotation is feasible. Both PICIC and PIFCO are empowered to underwrite the issue of stocks and shares, and should be in a position to sponsor the provision of capital to industrial companies through the stock exchange during the Plan period.

93. The extent to which the small investor can be encouraged to put his money into securities will depend on whether shares can be made available in small amounts and can be easily bought and sold. It is worth considering whether one or more investment trusts should be set up in order to offer a spread of risks to the small investor and simplify procedures of sale and purchase. The commercial banks can also foster share-mindedness among their depositors by offering investment advisory services.

94. The stock exchange has not been able to develop as an effective instrument for the promotion of non-institutional investment in government securities. One reason has been the comparatively low yield on government securities ; the weighted yield on industrial shares listed in the stock exchange is about 6·5 per cent at present, compared with 4 per cent yield on government securities. Another limitation has been relative lack of marketability of government securities. Hitherto, the State Bank of Pakistan has entered the market only as a seller, and has not assisted the non-institutional investors to find a market for their holdings when credit is tight and the call rate for money rises. To ensure greater marketability of government securities, the State Bank, like other Central Banks, will need to follow a more flexible policy of open market operations. This should enable the stock exchange to play an effective part in developing the market for government securities.

95. It is expected that private industry should be able to mobilize about Rs. 300 million through the stock exchange during the Plan period. In addition, the stock exchange is expected to make a significant contribution to the proposed government borrowings of Rs. 400 million from non-bank sources.

Insurance

96. In the more advanced countries, insurance companies have proved to be a powerful instruments for mobilizing savings and inculcating the saving habit. In Pakistan, insurance has not developed to the stage where it is a major contributor to capital formation, although the assets of insurance companies amounted to about Rs. 200 million in 1957. During the past few years, insurance companies have been investing only Rs. 15 to 20 million annually, as shown in Table 9.

TABLE 9

Contribution of insurance companies to capital formation.

(Million Rupees)

	Gross Income	Cost of collection	Net Income	Investment	Balance
1952 ..	19	9	10	4	6
1953 ..	24	11	13	4	9
1954 ..	27	13	14	14	Nil
1955 ..	34	15	19	17	2
1956 ..	32	14	18	19	1
1957 ..	42	19	23	15	8

97. Much of the business conducted by the companies is concerned with insurance against fire, marine and accident risks, and much of the premium income is absorbed by claims and operating expenses. The cost of collection is ordinarily as high as 40 to 50 per cent of the premium income. Life insurance provides a better opportunity for building up financial reserves, but the total sums insured are very low, only Rs. 7 *per capita* compared with Rs. 29 in India.

98. Gradual extension of the postal life insurance organization to the rural areas, as recommended in the First Plan and also suggested by the Credit Enquiry Commission, is one means of increasing premium income, and it may be possible to devise insurance arrangements tailored more closely to the needs of the country and the growing industrial working class. A scheme for the insurance of industrial working class is under active consideration of the Government. Tax incentives exist at present for investment in life insurance; the amount invested is exempt from income tax up to 20 per cent of the income of the insured. Possibilities of offering further incentives to individuals or insurance companies, in order to encourage savings through insurance, are under examination.

Interest rate policy

99. The use of direct controls by the Government (discussed later in this chapter) led to relegation of credit policy to a subsidiary role in the past. The public sector was financed by the Government from its own resources, the banking system and foreign aid and loans. In the private sector, the demand for capital was restrained by the rate at which expansion could proceed in the earlier stages of industrial development, and to some extent by institutional difficulties in making credit available, particularly to agriculture. Direct controls on investment and capital issues also served to reduce the demand for funds for investment purposes. The supply of capital and the demand for it appeared to be fairly independent of interest rates.

100. With the current change in emphasis from direct to indirect means of regulating the economy, it will be necessary to adjust credit policy in a number of ways with the object of mobilizing savings, channelling capital to where it is needed, and, in general, restraining the demand for it. A change in the interest rate policy will be needed to assist in these processes.

101. There exists a good case for an upward revision in interest rates. Productivity of investment is high ; it is, for instance, as high as 30 per cent in large scale industry. The interest rate structure should bear some relationship to profitability of investment. There should be no fear that higher interest rates will result in some of the capital funds lying idle; the aggregate supply of capital will still fall short of aggregate requirements. In fact, higher interest rates should not only attract higher savings but also bring about selectivity in investment.

102. The increased cost of raising capital for development purposes, which will result from relying on a more freely operating capital market, will help to ensure that in the choice of alternative projects particular attention will be given to those that yield results speedily. This will be entirely appropriate. Capital is scarce in the country and should be primarily used for projects where yields are high and gestation periods relatively short. Higher interest rates will also increase the incentive to speed up the completion of projects in hand, and to minimize the size of stocks in industry and commerce. Stocks in manufacturing industry appear to be large in relation to output, and if they were more costly to finance they might well be reduced with a release of capital for other purposes.

103. Perhaps the most favourable effect of high interest rates will be on mobilization of resources for development. The provision of grants and loans at low interest rates by the Government and from the banking system to financial institutions and public and semi-public bodies has tended to obscure the point that these institutions and bodies are expected to serve as instruments of capital accumulation. Loans at low rates of interest have meant that prices have not reflected the real scarcity of capital and insufficient margin has been left for an adequate volume of savings to be generated. In the same way, public bodies engaged in development work will fix the prices they charge in relation to the enhanced cost of securing capital funds. This will augment the recoveries they make and enable finance to be provided for an extension of their activities on a wider scale.

Fiscal and monetary controls

104. The Plan proposes a decisive move towards a more liberal economy, and a bold switch-over from direct controls to a policy of regulation of the economy through suitable fiscal and monetary controls. Direct controls have so far been the chief instrument of economic planning. There is a multiplicity of such controls on capital issues, prices, profits, imports, exports and distribution of certain goods and commodities. These controls are not only inefficient in many cases ; they have also placed an additional burden on the scarce administrative talent of the country, which could be better employed on development.

105. No government can entirely dispense with controls ; this is particularly true where resources are extremely scarce and must be used most effectively. Several controls must, therefore, remain, but must be reviewed constantly in order to :

- (i) eliminate controls that have lost their usefulness or are becoming too costly to enforce ;
- (ii) rationalize and simplify controls that continue to be needed ; and
- (iii) shift from direct, specific, physical controls which are difficult to administer efficiently, to indirect controls that guide private activity without determining it in each detail. As far as possible, such controls should be established through general regulations and their exercise should not be dependent upon individual judgement.

These principles underly the proposals made in the Plan. Some of the important implications of fiscal and monetary controls are summarized below.

106. *Foreign exchange controls.*—Control over foreign exchange will undoubtedly continue to be necessary throughout the Plan period but its form should change. There is a potential conflict of considerable severity between exchange controls and effective private enterprise. Precisely because access to foreign exchange is so vital for the economy it is also decisive in a large number of instances for the future of private enterprise. If the allocation of foreign exchange is controlled, decisions that can determine the success or failure of a private undertaking are in fact reserved to public authority and thus denied the decisional autonomy it requires, but also the financial penalties of delayed or adverse action are very great. The temptation to avoid these penalties and to seek the benefits of an undeserved allocation by unfair means will be great. The allocation of scarce import licences to established interests at the official rate of exchange leads not only to windfall gains and social injustice but also to misallocation of a scarce resource and heavy pressure on the import sector.

107. Some steps have already been taken to liberalize foreign exchange controls. Restrictions on the import of drugs and medicines have been almost abolished ; under the export bonus scheme, exporters of manufactured goods can obtain transferable import licences, eligible for import of a large variety of items without any quota restrictions ; and part of foreign exchange is being channelled to private industry through the medium of PICIC over a wide segment of specified investment without reference to public authority. These measures will be further strengthened during the Plan period to ensure an adequate and growing supply of foreign exchange to the private sector. At the same time, it is proposed to regulate the excess demand for imports through differential import taxes on broad categories of imports so as to reduce the detail and rigorousness of import controls and rely more on price mechanism.

108. *Price and profit controls.*—Price controls, and to a lesser extent, profit and rent controls, are another undesirable restriction on private activity. Such controls cannot be continued for long without hampering private investment and production, reducing capital formation in the economy, and aggravating the imbalance between demand and supply. They tend also to restrict exports by encouraging higher consumption levels domestically. By subsidizing consumers and encouraging consumption, price controls increase effective demand and thereby indirectly contribute to inflation, paradoxical though this may appear. In the last analysis, increased investment and production are the only effective means of keeping prices in check.

109. The Government has already relaxed price controls on a large number of commodities. Foodgrains have also been decontrolled, with the Government committed to keep prices within a defined range through the mechanism of purchase and sale of reserve stocks. The existing price and rent controls will require continued examination with a view to abolishing those which are not absolutely necessary.

110. *Interest rates.*—As indicated earlier in this chapter, regulation of rates of interest has important implications for private activity, as it directly affects the cost of capital and credit. If interest is below free market rates, investors will be encouraged to use more capital and less labour than they otherwise would; savings which furnish the capital will be discouraged; enterprises able to obtain capital at below free market interest costs, because they are well-established or for other reasons, will expand and use more of it than they should, while others, not so fortunate, will be kept from expanding or will be forced to pay abnormally high interest rates outside the regular market. Often an attempt is made to meet this problem by directly rationing inadequate credit. This is difficult and inefficient. It is necessary that the general level of interest rates should be raised to reflect the scarcity price of capital. If specific subsidies are needed in certain sectors to encourage investment, this should be considered separately from the general question of a revision in interest rates.

111. *Taxes and subsidies.*—Once the principle is accepted that prices should be used primarily as a regulatory device, there would appear to be no reason for the retention of many specific controls in the various sectors of the economy. A judicious system of taxes and subsidies can be used instead to promote a rational allocation of resources. Be it the distribution of cement and steel, or curtailment of luxury construction, or discouragement of any particular economic activity, taxes and subsidies should be allocated a more decisive regulatory role in preference to complete reliance on direct controls.

112. Removal of certain existing controls may ostensibly seem to run counter to some of the social objectives of the Plan. But it should be remembered that these social objectives can be achieved with fewer ill-effects by indirect means, especially by taxes on luxury consumption, and through encouragement of production. Each control needs to be analysed, however, on its own merits before specific decisions are taken on the removal or rationalization of some of these controls.

The Government has already raised price controls on a large number of commodities and has also imposed controls on the exchange rate. In the last analysis, however, the Government must find a way to deal with the inflationary pressure which is being built up by the expansionary fiscal policy. It is necessary to find a way to deal with the inflationary pressure which is being built up by the expansionary fiscal policy. It is necessary to find a way to deal with the inflationary pressure which is being built up by the expansionary fiscal policy.

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CHAPTER 4

BALANCE OF PAYMENTS

IMPROVEMENT in the balance of payments position was an important objective of the First Plan to be achieved by increasing exports, import substitution, and economies in non-development imports. The Plan projected foreign exchange earnings at Rs. 10,500 million ; it provided for imports, both developmental and non-developmental, including food, valued at Rs. 16,620 million ; these imports were to be financed from Pakistan's own earnings, from external aid in the form of loans and grants, and from foreign private investments. Foreign exchange earnings fell short of the Plan targets and some of the expectations about foreign aid were not realised. Total earnings during the Plan period are estimated at around Rs. 9,554 million, about 10 per cent less than the Plan expectations. The shortfall in earnings was accounted for by a number of factors, notably inadequate increase in domestic production ; a decline in world trade ; and increased demand at home for exportable goods. Foreign aid arrivals, and foreign private investment are estimated at Rs. 5,070 million against the Plan expectation of Rs. 6,120 million. The balance of payments position was worsened by a sharp deterioration of the terms of trade and by the emergence of serious food shortage. The index of the terms of trade declined by about 40 per cent between the first quarter of 1955 and the last quarter of 1959. Although large quantities of food were obtained as aid, a substantial amount of Pakistan's own earnings of foreign exchange had to be used for the import of food and for the payment of freight on foodgrains received as aid. The shortfall in earnings and foreign aid arrivals, the necessity to import large quantities of foodgrains and the worsening of the terms of trade left no alternative but drastically to reduce foreign exchange expenditure on imports of development goods, raw materials, and spare parts for machinery. This had serious repercussions on the economy. The reduction in the import of development goods was a principal factor accounting for shortfalls in implementation of the Plan.

2. In the Second Plan, as in the First, improvement in the balance of payments position remains an essential objective. Export earnings are expected to increase by about 15 per cent during the Plan period. Agricultural and industrial development programmes have been so designed as to create surpluses for export and to save foreign exchange expenditure on imports of food and consumer goods. But despite maximum efforts to increase exports and to save on imports through import substitution, there will still be a large gap between foreign exchange earnings and the import requirements of the economy under the Plan. This gap is estimated at Rs. 8,000 million : Rs. 1,500 million for general balance of payments support and Rs. 6,500 million for the import requirements of the development programmes of the Plan. It will also be necessary to import Rs. 1,000 million worth of foodgrains before self-sufficiency is reached by the end of the Plan period. In addition. Rs. 700 million worth of other agricultural commo-

dities will be required under U.S. Public Law 480 to generate rupee funds to finance a part of the rupee cost of the Indus Basin replacement works.

Foreign exchange expenditure

3. Foreign exchange expenditure during the First Plan was projected at Rs. 16,620 million. Actual imports are estimated at Rs. 14,455 million (Table 1).

TABLE 1
Projected and actual imports during the First Plan

				(Million Rupees)	
				Projected	Actual (a)
Non-development imports	..	..		9,400	8,525
(excluding food)					
Food imports	..	..	..	2,180	2,330
Development imports	..	..	..	5,040	3,600
Public sector	..	..	..	(3,290)	(2,600)
Private sector	..	..	..	(1,750)	(1,000)
			Total	16,620	14,455

(a) Figures for 1959-60 are estimated.

4. Foreign exchange expenditure fell short of the Plan projections by about Rs. 2,165 million. Food imports were higher than anticipated and other imports had to be cut correspondingly more. Imports of consumer goods were drastically reduced and imports of raw materials and spares were held well below requirements. But these measures did not prevent a disastrous cut in development imports. These fell short of Plan requirements by Rs. 1,440 million (or 28 per cent), Rs. 690 million in the public sector and Rs. 750 million in the private sector. This resulted not only in a cut in the development programme but also in serious distortion of the Plan priorities. Since development imports were not available in adequate quantity, the bulk of private investment was used for purposes such as building construction for which the import component of investment is small. This was at the cost of investment in industry and transport which had been assigned a high priority but required large imports of capital goods.

5. The reduction in imports of consumer goods was partly alleviated by increased domestic production. Nevertheless, there were serious shortages of some essential goods, causing considerable hardship. The indirect effects of the shortages of raw materials and spares were also serious and restrained

the rate of growth of the economy despite everything that was done to substitute domestic production for imports and to concentrate industrial output on the processing of domestic raw materials. A substantial proportion of industrial capacity remained idle due to import shortages. Fuller utilization of capacity would have gone a long way to counteract inflationary pressures by increasing domestic supplies of goods; and it would have been possible to extend the development effort.

Foreign exchange earnings

6. Foreign exchange earnings during the First Plan period are estimated to have been Rs. 9,554 million compared with Rs. 10,500 million envisaged in the Plan (Table 2).

TABLE 2
Foreign exchange earnings during First Plan period

		(Million Rupees)						Total
		1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1955-60
		(a)	(a)				(b)	
Raw jute	.. ..	857	941	808	858	790	818	4,215
Jute manufactures	.. ..	16	85	102	133	145	220	685
Raw cotton	.. ..	496	510	362	246	223	168	1,509
Cotton manufactures	.. ..	..	32	95	34	68	200	429
Hides and skins	.. ..	45	49	51	50	61	40	251
Wool	.. ..	80	85	96	78	81	77	417
Tea	.. ..	70	31	48	20	16	40	155
Miscellaneous exports	.. ..	188	203	138	109	145	200	795
Invisible receipts	.. ..	166	195	209	198	289	207	1,098
						(c)		
Total	.. ..	1,918	2,131	1,909	1,726	1,818	1,970	9,554

Source: State Bank of Pakistan.

(a) Adjusted for devaluation of the Pakistan rupee in 1955 to make the figures for various years comparable.

(b) Estimated by the Planning Commission.

(c) Including surrenders of foreign exchange under martial law regulation.

7. Earnings increased from Rs. 1,918 million in 1954-55 to Rs. 2,131 million in 1955-56. The high value of the Pakistan rupee before devaluation in July 1955 made jute manufactures and cotton goods uncompetitive in world markets. Devaluation caused a sharp increase in exports of jute manufactures and cotton goods, due partly to the clearance of accumulated stocks. The impact of devaluation was soon lost, however, and foreign exchange earnings remained below the 1955-56 level due, amongst other causes, to recessionary trends in world markets for primary exports and high costs of producing exportable manufactures. The upward trend in 1959-60 is partly due to the introduction of the export bonus scheme whereby exporters of certain goods are given transferable import licences depending in amount on their export earnings, and the type of goods exported. The incentive is provided by the large premium which these licences command in the market.

8. The decline in foreign exchange earnings from raw jute during the First Plan period, resulting mainly from a fall in exports to India, was made up by a sharp increase in earnings from jute manufactures. Earnings from raw jute and jute manufactures taken together increased from Rs. 873 million in 1954-55 to an estimated Rs. 1,038 million in 1959-60. Earnings from cotton goods fluctuated during the period, the aggregate increase failing to make up for the fall in earnings from raw cotton which could have been maintained at a higher level if the production targets set in the First Plan had been achieved and if prices had not declined. Earnings from hides, skins and wool remained more or less constant but those from tea declined, largely because of a fall in production accompanied by greater domestic consumption.

9. In 1959-60 the level of export earnings was approaching that of 1955-56 but the composition of exports had changed considerably. Jute and cotton, in raw and processed form, still account for about 80 per cent of total earnings from commodity exports, but jute manufactures and cotton goods will account for about 25 per cent of the total in 1959-60, compared with only one per cent in 1954-55. Exports of other manufactured goods also have registered some increase. These changes in the composition of exports reflect an important structural change that is taking place in the economy.

Terms of trade

10. The difficult balance of payments position of the country is due, in no small measure, to the deterioration in the terms of trade. The index of the terms of trade declined from 85 in the first quarter of 1955 to 52 in the last quarter of 1959. This was caused mainly by a steep rise in the price of imported goods up to 1957 and the decline in export prices of jute and cotton thereafter. The net effect has been to reduce the volume of imports the country can pay for by about 40 per cent, reducing the resources available for development year by year. It has been estimated that the loss to the economy during the First Plan period, due to the deterioration in the terms of trade since 1954-55 will be of the order of Rs. 2,000 million.

TABLE 3

Indices of unit values of imports, exports and terms of trade during First Plan period (April 1948 to March 1949=100)

Period	Index of unit values of imports	Index of unit values of exports	Index of terms of trade
Jan.—March 1955	82	70	85
Jan.—March 1956	128	84	66
Jan.—March 1957	152	97	63
Jan.—March 1958	159	93	59
Jan.—March 1959	150	84	56
Oct.—Dec. 1959	154	81	52

Balance of payments in the First Plan

11. The First Plan intended that foreign exchange expenditure from the country's own resources was to be limited to current earnings of Rs. 10,500 million and would not entail drawing on reserves ; it was expected that there would be a deficit of Rs. 6,120 million to be financed from foreign aid (Rs. 5,620 million) and private foreign investment (Rs. 500 million). Actual foreign exchange expenditure during the First Plan period was, however, much smaller than the projected expenditure (Table 4).

TABLE 4

Foreign exchange expenditures, earnings and deficit during First Plan period (Million Rupees)

	Projected	Actual (a)
<i>Expenditure financed by:</i>		
Pakistan's resources	10,500	9,385
Project and commodity aid and technical assistance	3,850	3,027
Foodgrain aid	1,770	1,618
Private foreign investment	500	425
Total	16,620	14,455
<i>Total foreign exchange earnings</i>	10,500	9,554
<i>Deficit</i>	6,120	4,901

(a) Figures for 1959-60 are estimated.

12. In spite of smaller earnings the actual deficit was substantially less than the deficit projected in the Plan. This was principally the result of reduction in imports of consumer and development goods, raw materials and spare parts for machinery.

13. Actual expenditure of foreign exchange during the Plan is estimated at Rs. 14,455 million, falling short of the Plan provision by Rs. 2,165 million. Imports financed by project and commodity aid and technical assistance are estimated to have been Rs. 3,027 million against Plan expectation of Rs. 3,850 million. This large difference, coupled with a shortfall in earnings which reduced the foreign exchange that the country could provide for development purposes, inevitably resulted in a shortfall in implementation of the Plan. Private foreign investment fell slightly short of the Plan projections, but the major shortfall was in project and commodity aid. It was not, however, unwillingness to furnish aid so much as its tardy arrival that resulted in the discrepancy between the assistance that was available and what was needed.

TABLE 5

External assistance during First Plan period

(Million Rupees)

	Project and commodity aid		Technical assistance		Food aid		Total	
	Commitment	Arrival	Commitment	Arrival	Commitment	Arrival	Commitment	Arrival
1955-56	500	424	83	41	304	145	887	610
1956-57	462	397	49	37	308	430	819	864
1957-58	658	449	62	47	380	358	1,100	854
1958-59	1,370	555	52	52	391	315	1,813	922
1959-60	745	954	59	71	323	370	1,127	1,395
Total	3,735	2,779	305	248	1,706	1,618	5,746	4,645

14. Whereas aid arrivals of all types for the First Plan are estimated at Rs. 4,645 million, the aid actually committed during the Plan amounted to Rs. 5,746 million. The difference is explained partly by the inevitable time-lag between commitment and arrival and partly by procedural and administrative difficulties in the utilization of aid. Also, foreign aid commitments were sharply accelerated in the last two years of the Plan and utilization of this higher level of aid will take place in later years. The difficulties in the way of prompt utilization of aid (as indeed of its speedy commitment) are now well understood and it is expected that the Government of Pakistan as well as the aid giving agencies will streamline their procedures with a view to eliminating avoidable delays.

The impact of aid on the economy

15. The United States provided the bulk of aid, followed by Canada, the United Kingdom, West Germany, Australia, New Zealand, and other countries. The Ford Foundation and the United Nations also provided appreciable amounts of aid. The World Bank came to the country's assistance with substantial loans.

TABLE 6

External assistance by countries and agencies during First Plan period

(Million Rupees)

	Commitment	Arrival
U.S.A.	4,520	3,736
Canada	313	299
U.K.	150	65
West Germany	192	50
Australia	14	45
New Zealand	13	12
Other countries	5	5
World Bank	443	366
Ford Foundation	57	33
U.N.	39	34
Total	<u>5,746</u>	<u>4,645</u>

16. The importance of foreign assistance to the economy was greater than its magnitude might suggest. Although it amounted to only 4 per cent of gross national product, it financed a very substantial proportion of development expenditure and about one-third of the total imports of the country. In recent years, nearly 10 per cent of the country's total foodgrain requirements were met through imports, made possible mostly by United States aid. The impact of external assistance on production and incomes, though not precisely calculable, was very considerable in the First Plan period. What is still less measurable is the continuing effect of external foreign assistance on the development effort in future years, but it is clear that by augmenting the means for building up an expanding and integrated economy, such assistance can have effects out of all proportion to its magnitude.

Balance of payments in the Second Plan

Projections of foreign exchange expenditure

17. Foreign exchange expenditure on essential non-development imports and payments in the Second Plan period has been projected at Rs. 12,100 million (Table 7). The considerations applied in the projections of the various categories of non-development imports are discussed below.

18. *Consumer goods*.—It has been assumed that imports of consumer goods will be maintained at an average level of Rs. 200 million. This includes provision for imports of consumer items on government account. Most of the consumer goods to be imported are of an essential nature, and

TABLE 7

Second Plan projection of non-development imports

(Million Rupees)

	Base level*	1960-61	1961-62	1962-63	1963-64	1964-65	Total 1960-65
Consumer goods on private and government account ..	200	200	200	200	200	200	1,000
Raw materials, fuels and spare parts	880	1,070	1,120	1,170	1,220	1,270	5,850
Invisible payments (including repayment of loans and payment of interest on private account) ..	360	380	390	400	410	420	2,000
Debt service and repayment:							
Outstanding loans on government account ..	30	50	80	90	90	90	400
Provision for new loans ..	..	..	..	..	..	..	500
Other government non-development expenditure ..	320	330	340	350	360	370	1,750
Foodgrains purchased from Pakistan's own resources and freight payment on foodgrain aid	150	180	160	140	120	..	600
Total ..	1,940	2,210	2,290	2,350	2,400	2,350	12,100

(*) The base level has been constructed by classifying the actual foreign exchange allocations for July—December 1959 into economic categories and raising the allocations to an annual basis with necessary adjustments for abnormal allocations for some items.

the demand for them is expected to increase during the Plan. But no provision can be made for any expansion in imports, except that imports of certain goods may be increased at the expense of others. Domestic production of consumer goods, however, is expected to increase very substantially in 1964-65 and about Rs. 80 million of this will replace types of goods at present imported introducing some flexibility into the composition of imports.

19. *Raw materials, fuels and spares.*—It is not possible to give a precise estimate of the import needs of raw materials, fuels and spare parts for the operation of industry. The Industrial Survey Organisation has tentatively estimated the import needs of industrial units at about Rs. 900 million. This estimate does not include import requirements of fuels, newsprint, iron and steel by commercial importers, and the requirements of the Pakistan Industrial Development Corporation, the Pakistan International Airlines and unregistered industrial units. It is surmised that these requirements, if met in full, would cost around Rs. 400 million annually. Thus total import requirements of raw materials, fuels and spares appear to be of the order of Rs. 1,300 million. The current annual level of these has been estimated at Rs. 880 million. Since additional industrial capacity is being established and fuller utilization of existing capacity is planned, the Second Plan proposes a 44 per cent increase in these imports to Rs. 1,270 million at the end of the Plan. This will not suffice, however, to meet the needs of all industries. Some industries, particularly those of low priority, will continue to operate at much less than capacity, and certain other industries producing non-essential goods may have to close down.

20. *Invisible payments.*—Invisible payments under private account are likely to increase to a certain extent because of increased remittances of profits of foreign investment. On the other hand, some economies in the payment of insurance premia and ocean transport will be possible with the development of insurance and shipping services. A small increase in invisible payments has been provided from year to year. Repayment of the portion of the previous suppliers' credits to the private sector which falls due for repayment during the Second Plan has been included, but payments on account of new supplier's credits, if any, during the Plan period have not been included in the projections. It is assumed that exchange control measures will continue to be rigorously operated in order to prevent the use of foreign exchange for less essential purposes.

21. *Debt service and repayment.*—Repayment of external loans and interest payments on outstanding loans repayable in foreign currency, chiefly those of the International Bank for Reconstruction and Development, will require about Rs. 400 million during the Plan period. Additional loans in foreign currency will be obtained during the Plan period, and the servicing of these loans will have to be provided for. It is not possible to estimate with any precision the amount required for this purpose or how payments will be distributed over the next five years. The service of

loans in the form of short term credits at comparatively high rates of interest might require more than the Rs. 500 million that has been provided for the service of new loans to be made during the Plan period. On the other hand, long term loans at favourable rates of interest and with interest payments to commence after a reasonably long interval, would require less provision than has been made and would free resources for development. In order to minimize future burdens, it is hoped that foreign assistance will be made available in forms that will not add greatly to the cost of debt service and will leave the country free to devote as large a proportion of foreign resources as possible to the development effort.

22. *Other government non-development expenditure.*—It is expected that other government non-development expenditure, including foreign exchange expenditure on defence, foreign missions and other administrative expenditure on government account, will not increase by more than 15 per cent over the Plan period. It is assumed that economies in expenditure will be vigorously enforced by the Government, and if these are successful, some foreign exchange may become available for additional imports of consumer goods and raw materials.

23. *Foodgrain imports out of Pakistan's own resources.*—As the attainment of self-sufficiency in foodgrain production within the country is likely to be a gradual process, some imports of wheat and rice financed both from the country's own resources and by foreign aid will be inevitable. Wheat imports under aid will partly be used as a reserve stock to stabilize market prices. Some irreducible imports of rice financed from the country's own resources will have to be continued so that moderate deficits in East Pakistan can be met partly from these imports and partly from West Pakistan surpluses. Expenditure on foodgrains to be met from the country's own resources is expected not to exceed Rs. 600 million in the Plan period. Imports of foodgrains, and payment of freight charges on foodgrains received as aid are expected to decline from Rs. 180 million in 1960-61 to Rs. 120 million in 1963-64, and the need of such imports is expected to be eliminated in 1964-65.

24. *Development imports.*—Development import requirements are determined by the composition of development programmes in the various sectors and international prices of capital goods. The import requirements of projects included in the Plan have been separately assessed. Requirements are estimated to be Rs. 4,000 million for the government financed programme and Rs. 2,500 million for the private financed programme. About 40 to 50 per cent of development expenditure on industry, transport and fuels and minerals will be in foreign exchange and about 15 to 25 per cent of expenditure on agriculture, housing and settlements, education and health. It has been assumed that prices of capital goods will not rise significantly in the international market. Assistance from the Development Loan Fund may have to be increased to the extent that purchases are diverted from international markets and entail the payment of higher prices in the United States.

Projections of foreign exchange earnings

25. Foreign exchange earnings of the country depend largely on world market conditions for exports of raw jute, raw cotton, raw wool, hides, skins and tea. The two major commodity exports, raw jute and cotton, are susceptible to wide fluctuations in world demand and prices. The new major industrial products, jute goods and cotton goods, which currently constitute about one-quarter of total commodity earnings, have to confront uncertain markets. Export earnings also depend on the availability of export surpluses which are, in turn, dependent on increases in agricultural and industrial production and changes in domestic consumption. The magnitude of market fluctuations cannot be foreseen. The projections of foreign exchange earnings during the Plan period (Table 8) are therefore based on the assumption that world market conditions will not be subject to violent fluctuations and that the production targets of the Plan will be achieved.

26. It is estimated that total foreign exchange earnings will rise from the annual level of Rs. 1,970 million in 1959-60 to about Rs. 2,278 million in 1964-65, an over-all increase of nearly 15 per cent. Of the increase, about three-fourths is likely to be accounted for by manufactured goods and one-fourth by raw material exports. Projections are based on the assumptions briefly described below.

TABLE 8

Second Plan projection of foreign exchange earnings

				(Million Rupees)			
				Annual average First Plan	1959-60 (Estimated)	Annual average Second Plan	Total Second Plan
Raw jute	..	..	..	843	818	800	4,000
Jute manufactures	..	..	..	137	220	267	1,335
Raw cotton and manufactures			..	388	368	380	1,900
Hides and skins	..	..	..	50	40	42	210
Wool	..	..	..	84	77	80	400
Tea	..	..	..	31	40	49	245
Miscellaneous exports			..	159	200	288	1,440
Invisible receipts	..	..	..	220	207	214	1,070
Total				1,912	1,970	2,120	10,600

27. *Raw jute and jute manufactures.*—It is anticipated that the world market for jute goods will expand by at least 2 per cent per annum during the next five years. As a packaging material jute is meeting stiff competition from paper and to a smaller extent from other fibres ; the transport of materials in bulk has also tended to impede expansion of jute consumption. Nevertheless, with a continued rise in world production of primary commodities, an expansion of 10 per cent in the use of jute for packaging purposes may reasonably be expected during the Plan period. About 15 to 20 per cent of world jute production is used for non-packaging purposes, of which the manufacture of floor coverings is the most important. For these purposes there is both a growing market and much less danger that other raw materials will be substituted. Consumption of jute for non-packaging purposes might increase by 4 per cent per annum or even more.

28. Export of jute in raw or manufactured form from Pakistan is expected to expand in line with world consumption, the entire increase taking place in the form of manufactured goods. The cost of growing high quality jute in Pakistan can be kept below that of other producers, largely because yield per acre is higher in Pakistan. In manufacturing, the level of wages is lower, and in some cases substantially lower, than in most other manufacturing countries. With modern mills and growing expertise available in the country, there is every opportunity to reduce costs and improve quality and to widen the market for industry through manufacture of new products.

29. The forecast of jute exports assumes that prices will not deviate greatly from the levels of mid-1959, which were low enough for jute to compete effectively with substitutes, and that production of raw jute and the installation of jute looms will proceed according to Plan. The target for jute looms has been fixed at 12,000 by 1964-65 (and may well be raised if circumstances are favourable) so that at least 380,000 tons of jute goods can be produced, and if markets develop favourably the amount available for export could be increased. Allowing for domestic consumption, this should leave at least 290,000 tons for export in that year. It is assumed that on balance, exports of raw Jute to other manufacturing countries will remain at about their present level. To take account of domestic and export needs, the production target for raw jute has been fixed at about 7.3 million bales.

30. *Raw cotton and cotton manufactures.*—An increase of some 10 to 15 per cent in world consumption of cotton appears to be likely during the Plan period. Pakistan provides only about 5 per cent of world cotton exports and there is scope for increased sales if supplies can be made available at competitive prices. The projected volume of cotton exports, in 1964-65, whether raw or manufactured, is well below the average exports in the years 1954-55 to 1956-57.

31. It is not possible to indicate how exports will be divided between raw cotton and manufactures during the Plan period. Exports of manufactures are estimated at about Rs. 200 million for 1959-60, but they have

been favoured by unusually strong markets for textiles, and insufficient yarn has been left for domestic uses even though productive capacity is fully utilized. It would be unwise, therefore, to assume that the present level can necessarily be maintained throughout the Plan period, but it is assumed that any fall in the export of yarn will be made good by increased exports of raw cotton. The expectation is that it will be possible to export at least the equivalent of 800,000 bales of raw cotton in either raw or manufactured form. The export price of raw cotton has been assumed to be only Rs. 400 per bale. At this price, Pakistan will be fully competitive in world markets. Raw cotton production is expected to rise from about 1.7 million bales in 1959-60 to at least 2.3 million bales in 1964-65 and this will be adequate to provide for export requirements and increased domestic consumption.

32. *Other commodity exports.*—Exports of wool, hides and skins have been fairly steady, but no increase in future exports of hides and skins is expected because of increased use by the domestic leather industry. Production of tea after processing is expected to rise from the current level of 54 million pounds to 64 million pounds in 1964-65 as a result of the replantings and expansion already under way; exports of tea are expected to rise from 17 million pounds to 22 million pounds during the Plan period.

33. Amongst miscellaneous exports, superior rice, newsprint and mechanical paper offer new prospects. An annual export of about 70,000 to 95,000 tons of superior rice, about 11,000 to 12,000 tons of newsprint, and about 8,000 to 9,000 tons of mechanical paper should be achievable under suitable measures of encouragement by the end of the Plan period. Earnings from these sources are expected to exceed Rs. 100 million in 1964-65. The refinery which is being established in Karachi is expected to be in operation in 1962 and this together with other chemical plants based on natural gas will provide a surplus of Rs. 90 million of refined petroleum products and petrochemicals for export in 1963-64 and subsequent years. Exports of fish are expected to earn at least Rs. 50 million per year during the Plan period, and a useful contribution can be made by the export of sports goods which have been running at about Rs. 10 million per year and could be increased. In addition it is expected that exports of shoes, pottery goods and metal products will add substantially to export earnings and that the number of other manufactured goods that are being exported under the export bonus scheme will increase.

34. *Invisible receipts.*—Discounting the extraordinary surrenders in 1958-59 of foreign exchange illegally held abroad, a small increase in invisible receipts is assumed, mainly from increased earnings of shipping, air and insurance services and tourism.

35. *Summary.*—Foreign exchange earnings were much greater in 1959-60 than in 1958-59 with a substantial increase in exports of raw jute, jute goods and cotton goods. Some strains in the domestic supply position of certain commodities were, however generated, but increased production in future years

should help to relieve the strains and provide export surpluses as envisaged in the Plan. Looking further into the future there is ample opportunity to expand export earnings. The production of natural rubber, hemp and cacao, on a commercial scale, and the increased exploitation of forest products, such as bamboo and teak, offer good export possibilities. There are expanding markets for fish and fruits. In industry a growing range of products is entering world markets, and there are opportunities to expand exports of footwear, surgical instruments, sports equipment and chemicals.

36. The projections of foreign exchange earnings and of expenditure on account of non-development and development imports are based on the assumption that the terms of trade will remain at about the present level, which is very unfavourable. Further deterioration in the terms of trade is unlikely under foreseeable international conditions of demand for primary commodities and manufactured goods. Furthermore, the projections are based on the assumption that the Government will continue to pursue policies of export promotion and conservation of foreign exchange resources. These and other related policies, needed for the fulfilment of the projections and improvement of the balance of payments position of the country in the long run, are discussed below.

Commercial policy

Export policy

37. It is intended to increase the output of commodities that can be sold in foreign markets, to curtail domestic consumption in order to have a surplus for export, and to provide adequate incentives and opportunities to exporters. The measures to be taken to increase the production of exportable commodities are described in the chapters on agriculture and industry. Domestic demand for many goods that can be exported is growing and inflationary pressures may increase it further. If exports are to expand on the scale envisaged, domestic demand will have to be curtailed sufficiently. This means both that taxation levels will have to be high enough to restrain consumption, and that more specific measures will have to be taken to restrict consumption of particular goods that can find an export market. It may be possible to impose excise duties on domestic consumption of commodities which are required to be exported. Where this is not possible the use of compulsory export quotas can be considered as an alternative. It is inevitable that the diversion of goods to export markets will be to the disadvantage of consumers. There will be some rise in prices. This must, however, be faced if export earnings are to increase sufficiently for the Plan to be carried out. The target of tea exports in the Plan, for instance, will have to be viewed in the light of the fact that consumption in 1957-58 and 1958-59 was 50 per cent greater than it was in 1952-53 and 1953-54. It is not possible both to increase consumption on this scale and to provide adequate quantities for export. Until such

time as the output of tea can be increased, domestic consumption will have to be restrained by one means or another. Generally, the desire to increase domestic consumption has to be reconciled with the need to increase exports. Disinclination to give first priority to export, however, will seriously jeopardize the implementation of the Plan.

38. The export bonus scheme, introduced by the Government in January 1959, has succeeded in promoting exports of certain goods. A number of commodities which were not exported previously in significant quantities are now being increasingly exported under the stimulus of the scheme. These include fuller's earth, dry dates, medicinal herbs, crude glycerine, cement, tiles, gold thread, household utensils, reed board, maize starch, marble blocks molasses, tents, oxygen gas brushes and cotton canvas. The added return given to exporters of cotton yarn under the export bonus scheme is considerable, and export sales have been profitable at prices which have allowed little if anything for the cost of processing. Thus export of cotton yarn has not greatly enhanced the return to the country that would have resulted from selling an equivalent amount of cotton in raw form. If cotton could have been exported as cloth rather than as yarn, the gain would have been more substantial. The stimulus to export cotton manufactures has, however, expanded total sales of cotton abroad at the expense of domestic consumption. The export bonus scheme has, moreover, resulted in making entrepreneurs distinctly more export minded : a welcome tendency which if it continues will serve an important purpose of the Plan. The Plan assumes that proper incentives will be maintained for exports at all times.

39. It may be possible to increase the production and export of cotton and jute by reducing export duties. The case for a reduction of the export duty appears to be stronger for cotton than for jute. Cotton prices are determined on the world market by the output of the world's larger producers, particularly the United States, and the export duty reduces the profitability of producing cotton for export in raw form. Export duties on raw jute have not so far proved a serious obstacle to the export of raw jute ; but world consumption of jute is dependent on the price charged for it, and a high price will discourage consumption and promote the use of substitutes in the consuming countries. Some adjustment in the export duty on raw jute may become necessary during the Plan period.

40. As a member of the International Monetary Fund and other international bodies and as a signatory of the General Agreement on Trade and Tariffs, Pakistan has to discharge certain obligations with respect to the promotion of free trade. The diversification of the country's export and import trade will continue to be an important part of its commercial policy, and steps will need to be taken to promote trade with the developing countries in Asia and Africa. At the same time, there is need for active cooperation with other countries in devising some international means of promoting stabilization of the prices of internationally traded primary commodities as well as manufactured goods required for development purposes.

Import policy

41. Foreign exchange will be scarce and of vital importance during the Plan period and government control will have to continue to be exercised over it. It is intended, however, to relax and modify controls whenever possible and to continue to introduce greater flexibility into the allocation of foreign exchange for various purposes.

42. *Imposition of import surcharges or duties.*—If foreign exchange is made more costly to importers, the demand for it will be reduced and there will be less temptation to use it for unessential purposes. It will be more evidently profitable to substitute domestic production for imported goods and so to save foreign exchange and increase domestic production and employment. To the extent that higher costs curb demand, it will be possible to allocate foreign exchange with greater freedom and extend the range of commodities that can be put on open general licence. This should reduce the incidence of costly production delays and waste of capital due to shortages of spare parts and raw materials, and facilitate effective planning in the private sector of the economy. Conservation of foreign exchange along these lines can be brought about by imposing import duties or surcharges, if necessary, at varying rates for different types of imports. This is discussed more fully in Chapter 3.

43. *Import substitution.*—It is necessary to substitute domestic production for imports wherever possible. This is fully taken into account in the development programmes. The increases planned in agricultural production will enable food imports to be progressively reduced and provide increased supplies of raw materials or industry. Increased output of fuel and power will also reduce import requirements. The industrial programme provides for continued reliance on indigenous raw materials; considerable increase is envisaged, for example, in the output of cement, fertilizer and industrial chemicals, which do not require large quantities of imported raw materials. This will also help to reduce dependence on imports of goods for development purposes. It is anticipated that large scale manufacturing industry will increase its annual output of investment goods, including spares for industry and transport by about Rs. 400 million per year during the Plan period.

Foreign exchange budgeting and control

44. An essential condition for the implementation of the Plan is that foreign exchange budgeting be improved on the following lines :

- (i) The foreign exchange budget, like the financial budget, should be prepared on an annual basis.
- (ii) As far as possible, the allocations of foreign exchange should be shown in the same detail as the allocations in the financial budget.
- (iii) The foreign exchange budget should be comprehensive, that is, it should cover the country's own earnings of foreign exchange as well as foreign aid and loans.

- (iv) The foreign exchange allocations for non-development expenditure should be shown separately from those for development expenditure.
- (v) The annual development programme should be as fully reflected in the foreign exchange budget as in the financial budget.
- (vi) A fair balance should be observed in the allocation of foreign exchange between the public and private sectors.

45. There are inherent difficulties in forecasting foreign exchange earnings and foreign aid and loans for a year or more in advance. If earnings fall below forecasts or aid is less than anticipated, the development programme is jeopardized. This points to the need for a stand-by foreign exchange reserve fund to provide against major unforeseen contingencies. An attempt should be made to establish such a fund with the cooperation of foreign aid agencies, including the International Monetary Fund. A part of existing foreign exchange reserves might also be earmarked for this purpose.

46. The licensing of foreign exchange to the private sector for various purposes should be based on priorities determined in the light of changing economic conditions in the country. The existing commercial categories for licensing which are based on the experience of the Open General Licence period need to be reviewed and revised in order to ensure that they reflect the present position of the import trade, which is structurally very different from the Open General Licence period. The licensing of foreign exchange for the import of raw materials and spare parts for industry should be based on the assessment of requirements resulting from the recent surveys carried out by the Ministry of Industries. Moreover, this assessment should be reviewed periodically to take account of changing requirements. For obvious reasons imports of raw materials and spares for the operation of installed capacity of essential industries should receive a high priority for the allocation of foreign exchange.

Foreign exchange reserves

47. From the level of foreign exchange reserves held by the country and the uncertainties to be faced in future, it does not appear that these reserves can be used for financing any part of the foreign exchange expenditure under the Plan. Foreign exchange reserves declined between June 1957 and September 1958, when they reached the low level of Rs. 725 million. Severe import restrictions were imposed and other measures taken to conserve foreign exchange. As a result, the drain on foreign exchange was halted and the reserves have since increased to over Rs. 1,300 million at the end of March 1960. It is not intended to recommend accumulation of reserves on any significant scale during the Plan period. At their present level, they are equivalent to about five months' imports and this is probably adequate to safeguard the economy against moderate and short-lived fluctuations in foreign exchange earnings and requirements.

48. Some demands may be made on foreign exchange reserves during the plan period as a means of temporary finance. It is possible for example, that arrivals of aid may at times fall somewhat below requirements in the earlier years of the Plan, and reserves may have to be used; in later years, increased arrivals of aid should make it possible to rebuild the reserves to their present level. Also to meet unfavourable fluctuations in export earnings and import requirements during the Plan period, it may become necessary to use reserves temporarily as a cushion against drastic and harmful cuts in imports.

External aid requirements

49. It is clear from the projections of foreign exchange earnings and expenditure that even non-development import requirements of the economy cannot be met in full from the country's own earnings. The gap between earnings and expenditure becomes very large when imports for development are taken into account (Table 9).

TABLE 9

Foreign exchange gap during the Plan

	(Millions Rupees)
Foreign exchange earnings	10,600
Non-development foreign exchange expenditure	12,100 (a)
Imports of foodgrains under P.L. 480	1,000
<i>Balance on non-development current account</i>	—2,500
Extraordinary imports of other agriculture commodities under P.L. 480	700 (b)
Development imports	6,500
<i>Foreign exchange gap</i>	9,700

(a) Including a lump sum provision of Rs. 500 million for debt service in respect of new loans likely to be contracted during the Plan period.

(b) This is required to finance a part of the rupee expenditure on the Indus Basin replacement works.

50. It is estimated that compared with 1960-61 the balance of payments on non-development account will improve by Rs. 445 million by the end of the Plan. This improvement will result partly from the anticipated

substantial reduction in imports of foodgrains following a rise in domestic production. The rise in exports of goods and services and the fall in foodgrains imports will mean that receipts and payments on current account will be approaching a rough balance by the end of the Plan period and it is expected that in the next few years the economic situation of the country will improve sufficiently to make it possible to meet import requirements increasingly from an expansion of export earnings resulting from great diversification of industry and growth of agricultural production.

51. For the implementation of the Plan, the foreign exchange gap of about Rs. 9,700 million will have to be filled by foreign aid and loans and by foreign private investment, as indicated in Table 10 below.

TABLE 10

Composition of external assistance required for the Plan

	(Million Rupees)	
Aid, loans, and private investment for development programmes	6,500
Balance of payments support in the form of non-project aid	1,500
Foodgrain aid	1,000
Extraordinary agricultural commodities aid	700
		9,700

52. The balance of payments support of Rs. 1,500 million should make it possible to purchase essential supplies of raw materials, fuels, and spares for the operation of industry. Foodgrain aid of Rs. 1,000 million is to help the country meet the consumption requirement of foodgrains and to build up reserve stocks until self-sufficiency in production is achieved. A sum of Rs. 700 million is included in the form of extraordinary agricultural commodities aid to provide a part of the counterpart rupee finance essential for the execution of the Indus Basin replacement works. Apart from foodgrain and extraordinary agricultural commodities aid, Rs. 8,000 million of external aid will be required during the Plan period. Direct investment in the private sector is roughly estimated at Rs. 1,500 million. The balance of Rs. 6,500 million, therefore, will have to be obtained by the Government. Of this, Rs. 1,500 million will be used as balance of payments support, Rs. 1,000 million for transfer to the private sector and Rs. 4,000 million for the government financed development programme. Utilization of aid on the lines indicated above is dependent on the form in which aid becomes available to the Government. Many of the projects in the public sector will be eligible for external aid in the form of project aid. There are, however, a large number

of projects, including many projects in the fields of health, education and social welfare, which are essential for the balanced development of the country, but which do not normally qualify for project aid. It is also impossible to obtain certain developmental imports such as fertilizers, plant protection equipment, pesticides, small machinery and tools, and iron and steel products through project aid. Therefore, a substantial amount of the Rs. 4,000 million aid for the public sector programme will have to be aid which is not tied to particular projects. The balance of payments support of Rs. 1,500 million and Rs. 1,000 million to be channelled to the private sector through Government will also have to be untied aid. This points to the need of having about Rs. 3,500 million out of the Rs. 6,500 million of aid to be obtained by the Government as untied aid. At present defence support from the United States and a certain amount of commodity aid from Colombo Plan countries is the only aid which is not tied to particular projects. Arrangements will have to be made to receive a substantially larger amount of commodity aid or untied project aid during the Plan period. The value of aid will be reduced if it is tied to purchases in particular countries. When the import requirements of aided projects have to be purchased from the country giving the aid, it is not always possible to obtain these imports at competitive world market prices and this frequently results in higher costs.

53. Considerable time is taken up by negotiations for aid, signing of project agreements, contracting for engineering services and the ordering of equipment in accordance with the conditions laid down by aid giving agencies. Sometimes these negotiations are helpful in the proper preparation of projects, but frequently they are time-consuming and result in inordinate delays in the implementation of the projects. As a rule no aid imports materialize in the year in which aid to a project is committed ; and often two years elapse before aid operations begin to have an impact on the implementation of projects. The loss of time involved in completion of aided projects sometimes results in higher costs and in delayed benefits which partly offset the advantages derived from aid.

54. It is estimated that the amount of aid remaining in the pipeline by the end of the First Plan will roughly amount to Rs. 1,430 million. The Plan assumes that there will be no increase in this figure. This means that utilization of aid on balance will be roughly equal to commitments to be made during the Plan. On the one hand there will be a tendency for aid in the pipeline to increase during the Second Plan period as the amount of aid commitments increases ; on the other, it is intended that utilization of aid will be more expeditious. Experience has shown that commodity and defence support aid as well as foodgrain aid is utilized more rapidly than project aid, and aid in these forms would prevent delay in the pipeline. The amount of aid that will need to be committed during the Plan period will depend on movements in the pipeline. Should the pipeline become swollen, additional quantities of aid will have to be committed in order that arrivals are as large as required by the Plan.

55. The utilization of counterpart funds from commodity aid (U.S. P.L. 665/138) and foodgrain aid (U.S. P.L. 480) is governed by agreement between the United States and Pakistan Governments. Part of the counterpart funds is set aside for the use of the United States Government and the balance is periodically released for use by the Pakistan Government for specific purposes. It was assumed in the First Plan that counterpart funds not used by the United States would be available to Pakistan as a development resource. There has, however, been a considerable time lag between the accrual of counterpart funds and their release, creating some (though not insuperable) budgetary problems. What is more important is that the utilization of counterpart funds has not always been in accordance with Plan requirements. There is need for recognition of the fact that counterpart funds have been taken into account in the estimates of resources available for development during the Second Plan period, and that these should be used strictly in accordance with the requirements of the Plan.

56. Technical assistance up to the present has been available largely for the public sector. There is need for its greater expansion to the private sector. But it is difficult to obtain foreign aid for projects in this sector.

57. It is estimated that Rs. 1,500 million may become available from foreign loans and investments in the private and semi-public sectors, as shown in Table 11.

TABLE 11

Estimated foreign investment in the private and semi-public sectors

						(Million Rupees)
Investment in industry through PICIC .. .. .	..	..	..	..	..	500
Other investment in industry and transport .. .. .	..	..	..	..	..	270
Investment in fuels and minerals .. .. .	..	..	..	..	..	330
Direct loans from DLF and World Bank to semi-public sector .. .. .	..	..	..	..	..	400
						<hr/>
				Total ..		1,500
						<hr/>

58. These estimates do not include possible foreign investment in a natural gas liquefaction project, which would require heavy expenditure in foreign exchange. If this project materializes, the entire foreign exchange cost of the project may have to be met from private foreign investment.

59. The Government has taken various measures to encourage foreign capital and enterprise to assist in developing the economy. All industrial undertakings, domestic or foreign, established after 1 April 1959 and meeting prescribed conditions, enjoy a tax holiday for the first two years ; and losses incurred during the past six years may be carried forward and set off against income in subsequent years ; liberal depreciation allowances are permitted and income tax relief is given to foreign technicians ; there are special tax concessions on investments in mining industry ; and credit facilities in the form of equity participation or loans from specialized financial institutions are also available to foreign companies.

60. Foreign capital in approved industries established after September 1, 1954 may be repatriated at any time thereafter, to the extent of the original investment, to the country from which the investment originated. There is no restriction on the remittance of current profits to the country from which the investment originated. Any part of the profits derived from investment and ploughed back into industrial projects with the approval of the Government may be treated as investment for repatriation purposes. Appreciation of approved capital investment may also be treated as investment for repatriation purposes. Repatriation facilities are subject to whatever exchange control regulations are in force from time to time ; they do not apply to purchase of shares on the stock exchange, unless it is an integral part of an approved investment project.

61. The Government has no intention of nationalizing industries. Should an emergency or other circumstances necessitate nationalization in any particular case, just and fair compensation would be paid in the currency of the country of origin. An investment guarantee agreement is in force between the United States and Pakistan, under which the United States Government guarantees investments by private American investors in business enterprises in Pakistan against losses arising from inconvertibility of foreign currency earnings into dollars or against expropriation. Recently, an investment treaty has been signed with the Federal Republic of Germany which guarantees German investment in Pakistan against such losses.

62. There is no rigidity about the participation of Pakistan capital in any industry where foreign investment is approved by Government. Normally the Government will expect that the required local expenditure will be met from local equity capital. In the case of oil refining, Government will expect substantial participation of Pakistani finance in the equity capital.

63. Relief from double taxation is available for foreign investors from countries with which Pakistan has an agreement to this effect. Such agreements are at present in force with the United States, Sweden, Japan, India, Federal Republic of Germany, Switzerland and Denmark. An agreement with the United Kingdom expired recently and awaits renegotiation.

CHAPTER 5

PUBLIC ADMINISTRATION

IN the presentation of the sectoral development programmes, considerable attention has necessarily been given to policy and administrative aspects. Without reasonably clear ideas as to how the programmes should be carried out, the Plan would not be complete. Indeed, to a substantial extent, the practicability of the Plan must be tested against the administrative policies and measures proposed for its execution.

2. The problem of implementation is a question partly of motivation and partly of administrative mechanics. It is necessary to identify the motivating forces of human energy which can be enlisted, and to devise programmes and policies which will mobilize those energies for the realization of the Plan. The dynamics of Plan implementation rests fundamentally on the spirit or will of the Nation. The Plan will not be carried out unless there is a conscious sense of national destiny and a determination to exert strenuous efforts towards building the greater Pakistan of the future. An immense responsibility rests upon the leadership in the Government to show the way, to demonstrate faith and confidence, and to fashion the public service into an effective instrument for assisting the people in all walks of life to make their own contributions to the country's development.

3. The role of the Government is crucial, but the Plan will fail completely if it is assumed that this is a Government Plan, in which the people are to play a passive role. In fact the spirit of the Plan is quite different. In many diverse ways it assumes the mobilization of the people's imagination and energies. In agricultural and rural development generally, there is to be greater dependence on the initiative of the community councils to organize the planning and execution of the rural programmes. In industrial development much heavier reliance is to be placed on the private entrepreneur. Public policy is to free the economy as much as possible from controls in the industrial, commercial and agricultural sectors, and to rely increasingly upon private initiative and judgment. The worker is to be given a larger stake in production as a result of policies designed to improve his working conditions. The role of women in national life is to be steadily expanded through improvements in their educational and employment opportunities. The coverage and standards of education are to be improved so that there is an increasing awareness among the people of their duties, responsibilities and benefits as citizens.

4. The specific policies, programmes and administrative machinery through which the will to national advancement is to be fostered are described in the relevant chapters of the Plan. General policy considerations affecting the role of public administration in the First and the Second Plans are discussed briefly below.

5. The First Plan contained a comprehensive review of the problems facing the public service in the execution of a national development programme. Problems of administration were identified and proposals made on organization and staffing, to facilitate planning and implementation. Many weak spots in administration noted in the First Plan have been dealt with ; in particular, important administrative reforms were effected during 1958—60. Public administration therefore is materially stronger at the commencement of the Second Plan than it was at the beginning of the First. The much enlarged programme of the Second Plan could not have been presented with any degree of confidence had not important administrative improvements already taken place, and a suitable climate created for further strengthening the structure and operations of the Government.

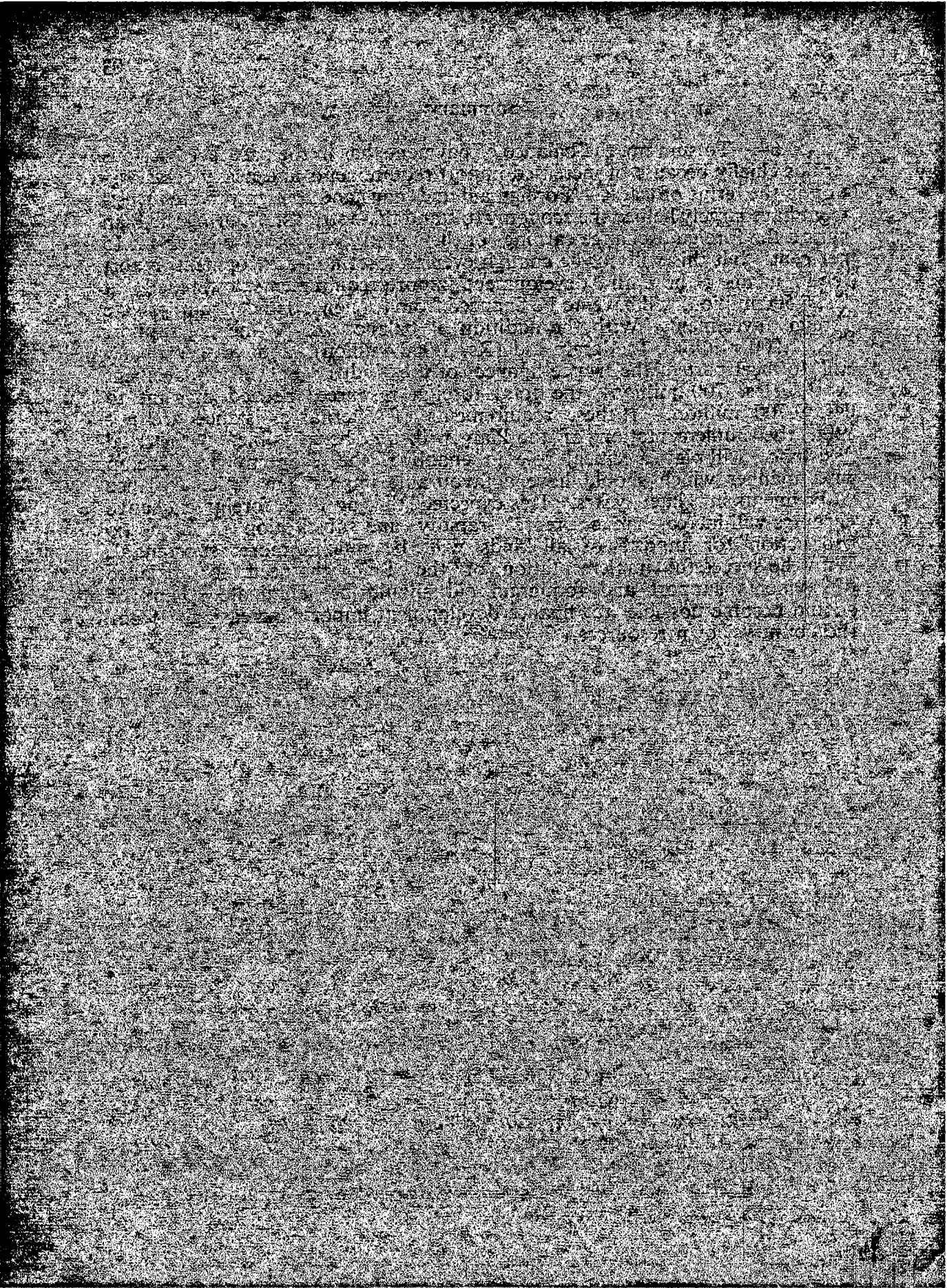
6. While recognizing the general excellence of the public services, the First Plan emphasized the need for an increasing awareness of the service side of public administration, and of the high ideal of "establishing a living human fellowship with the people". This concept is now being actively developed in the institutions of Basic Democracies, designed to fuse responsibility and discipline in administration with a comprehension of the wishes of the people as expressed through their elected representatives in the local councils.

Machinery for planning and implementation

7. The location of responsibility for making and executing plans is of prime importance. The First Plan devoted considerable attention to this subject, and notable progress has been made in the definition of the various arms of the Government concerned with planning, and in the creation of new agencies as needed. Ultimately responsibility both for the initiation and the execution of plans must rest with the various Ministries, Departments and other units of line administration to which programme responsibilities are assigned. The coordinating and supervising organizations and staff bodies at best can stimulate and appraise, but nothing can be accomplished unless the administrative agencies of the Government are able to perform the concrete tasks of programming and execution. Planning and implementation are complementary facts of the responsibility of all units of the government machine.

8. In June 1959, the machinery for planning and development at the Centre was reorganized. The present position is that the supreme decision-making body on economic policies and programming is the Economic Council, headed by the President, and consisting of the Governors of the Provinces, the Ministers of the principal development Ministries, the Chairmen of PIDC and East and West WAPDAs, and the Chairman of the Planning Commission (which provides the secretariat). Its functions are :

- (i) to review the overall economic position of the country and to formulate economic policies ;



Summary

64. To sum up, the balance of payments has in the past faced serious strains chiefly because of increased import requirements and heavy deterioration in the terms of trade. Foreign aid and loans and foreign private investment have largely helped the economy to stand these strains. During the Plan period the foreign exchange earnings of the country will increase by about 15 per cent ; but this will not be enough even to meet non-development import requirements ; the entire development import requirements, estimated at Rs. 6,500 million, will have to be financed from foreign aid and from private foreign investment. With the addition of balance of payments support (Rs. 1,500 million), foodgrain aid (Rs. 1,000 million) and extraordinary aid to meet part of the rupee finance of the Indus Basin replacement works (Rs. 700 million), the total foreign resources needed amount to Rs. 9,700 million. If these requirements of external assistance are not met, the implementation of the Plan will not be possible. External assistance will play a critical role in enabling the economy to develop in a manner which should have a favourable impact on the balance of payments in later years. It is expected that by 1965, foreign exchange earnings will increase much more rapidly and substitution of domestic production for imports of all kinds will be much more substantial. With the successful implementation of the Plan the need for balance of payments support and foodgrain aid should be eliminated, and it should become possible to finance development imports increasingly from the country's own resources.

- (ii) to approve the Five Year Plans and the annual development programmes ;
- (iii) to sanction development schemes including those falling under the Five Year Plans and the annual development programmes; and
- (iv) to review the progress made in the implementation of plans and programmes mentioned above, and to ensure that balanced economic development of all parts of the country is achieved.

9. For current decisions and actions below the level of the Economic Council, the Economic Committee of the Cabinet performs the following functions :

- (i) to supervise the implementation of the economic policies laid down by the Cabinet and the Economic Council ;
- (ii) to take day-to-day decisions on economic problems ; and
- (iii) to sanction development schemes pending their submission to the Economic Council.

The Economic Committee operates under the chairmanship of the Minister of Finance ; its members are those Ministers having principal responsibilities in economic problems and development programmes, and the Chairman of the Planning Commission.

10. The Planning Commission, under a new charter with authority and responsibility appropriate for a central planning agency, has the following functions :

- (i) in consultation with the Central and Provincial Governments and other appropriate agencies—
 - (a) to prepare a national plan at periodic intervals for the economic and social development of the country ;
 - (b) to make assessments from time to time of the human and material resources of the country ;
 - (c) to prepare the annual development programme within the framework of the national plan and, on a determination of priorities, to propose the allocation of resources.
- (ii) to stimulate and where necessary initiate the preparation of development programmes and projects ; to examine and advise on all such programmes and projects with a view to deciding whether these conform to national objectives and, in general, whether these contemplate the most efficient use of national resources ;
- (iii) to recommend such adjustments in the national plan as may be necessary in view of the changing economic situation ;

- (iv) to coordinate the examination of development programmes and projects in consultation with the appropriate authorities, and to secure the approval of the Central Government to acceptable programmes and projects ;
- (v) to advise on the nature of the machinery for securing the efficient execution of the national plan ;
- (vi) to watch and evaluate the progress of implementation of the development programme ;
- (vii) to advise on important economic policies and problems in various fields ;
- (viii) to undertake and promote economic research, and to initiate surveys and investigations needed to support effective planning and development ; and
- (ix) to examine such specific problems as may be referred to it by the Government.

11. The Planning Commission exercises its responsibilities principally through preparation of long-range periodic plans in collaboration with the Central Ministries and Provincial Governments; preparation, in collaboration particularly with the Ministry of Finance, of the annual development programmes, for inclusion in the annual budgets of the Central and Provincial Governments ; and coordination and approval of development schemes and programmes through the machinery of inter-Ministry Development Working Parties, headed by the Deputy Chairman of the Planning Commission.

12. The supervision of implementation is assigned to a new agency, the Projects Division, which operates under the Economic Committee of the Cabinet and in collaboration with the Central Ministries, the Provincial Governments, and especially with the Planning Commission. Its functions are :

- (i) to progress the implementation of approved development projects, particularly aided projects ;
- (ii) to devise, obtain collate, and distribute to all concerned reports on the progress of projects, and to prepare periodic digests of these reports for the information of the Government ;
- (iii) to measure performance against promise, especially by comparing actual with estimated costs of projects ; and
- (iv) to identify the causes of delays and difficulties, if any, in the implementation of projects, and to promote specific solutions.

13. Both the Provincial Governments have Planning and Development Departments, responsible for stimulating and coordinating the development programmes and schemes of the Provincial departments, preparing Provincial programmes for inclusion in periodic plans and annual development programmes, and evaluating progress of Provincial Government schemes.

14. With the creation of institutions of Basic Democracies a new dimension has been added to Provincial administration. The Basic Democracies are a hierarchy of councils, constituted in part of elected representatives and in part of official appointees, who advise and assist the line administrations, particularly in the discharge of their development responsibilities. The councils operate at the union, *tehsil* or *thana*, district, and division levels. The union councils are assigned responsibilities in agricultural, industrial, and community development ; promotion and extension of the cooperative movement, village industries, forests, livestock, and fisheries ; adoption of measures for increased food production ; and promotion of the welfare, education, health, safety, comfort, and convenience of the people. The *thana* or *tehsil* councils may be authorized to undertake any of the functions assigned to the union or district councils. In addition to the functions listed for the union councils, the district councils are responsible for providing and maintaining primary schools, hospitals and dispensaries, public roads, culverts and bridges, and water supply ; and for the promotion of sanitation and public health. The institutions of Basic Democracies can thus be expected to assume a crucial role in decentralized development planning and implementation, which was an objective of the First Plan.

Problem areas in planning and implementation

15. The basic machinery is thus seen to be established to do an effective job of planning and implementation. However, this machinery will require refinements and adjustments to achieve the high standards of administrative performance needed for the Second Plan. Certain questions of cardinal importance will require early resolution ; others cannot be resolved without additional experience, and will then require extensive study and improvement, perhaps throughout the Plan period. The principal problems already apparent are discussed briefly below.

16. *Division of responsibility between Centre and Provinces.*—Because the basic assignment of powers and responsibilities between the Centre and the Provinces must await final decisions on the constitutional structure of the country, some lack of precision may be inevitable in the early stages of Plan implementation, though the necessity of reaching clear-cut decisions at the earliest possible date is apparent. In general the assumption is made in the Plan that formulation of national objectives plans and policies, and appraisal of results will be a function of the Central Government; that programmes will be directly executed by the Central Government only to the extent necessary ; and that the adaptation of general objectives and plans to Provincial conditions, and the execution of approved programmes will be the responsibility of the Provincial Governments and local bodies. This method of administration has proved to be well adapted to the geographical and cultural characteristics of the country. In the interest of efficient administration it is vitally important that this principle of allocation of responsibilities between Centre and Provinces be consistently applied.

17. *Roles of the central planning bodies.*—The precise constitution and roles of the Economic Council and the Economic Committee of the Cabinet will need to be reviewed as experience is gained and as the allocation of functions between the Centre and the Provinces is further clarified. The need for a decision-making body below the Economic Council to deal with current problems is evident. This function is at present discharged by the Economic Committee of the Cabinet, but some procedural device for expressing Provincial views in this body may be needed, because the Provincial Governments rather than the Centre are responsible for implementing programmes.

18. The division of responsibility between the Planning Commission and the Projects Division also requires continuing attention, because these two staff bodies share the vital function of appraising progress. In the course of its work in planning and evaluating, the Commission encounters many instances where plans or policies are not being applied or are delayed. The Projects Division needs to be currently informed of all such facts of major importance in order to set in motion the necessary corrective steps. If correction is impossible, the Commission needs to know, in order that plans can be adjusted to the situation. A more formal definition of working relationships will need to be settled by the two agencies within the existing general framework. The intermingling of the roles of the Planning Commission and the Projects Division raises problems of some complexity, which should be reviewed after further experience has been gained of the working of the present arrangements.

19. *Planning in Central Ministries, Provinces and Departments.*—The success of the planning process in the long run depends, among other considerations, upon effective machinery for decentralization and coordination of planning. The Provincial Planning and Development Departments are playing an increasingly effective role in initiating and coordinating planning within the Provincial Governments. But the staffing of these departments is still inadequate. Moreover, the heads of the Departments (who should be of the rank of Additional Chief Secretary) have commonly had to divide their time between planning responsibilities and direct administration of one or more executive departments. This not only limits the time and effort they can give to planning, but also obscures the concept of planning, which necessarily assumes that the heads of the Planning and Development Departments should be able to promote an impartial general balance to the planning and execution of development programmes.

20. Most Ministries and Central and Provincial Departments have no properly constituted planning units. A notable exception is the Railway Administration, which has units well versed in planning techniques. Effective planning units should be organized as rapidly as possible in all Ministries and Departments which deal with matters related to economic and social development. Through the pressure exerted from the Planning Commission and the Provincial Planning Departments some progress has been made in

improving the quality of planning throughout the government machine ; but much still remains to be done. For the most part hitherto, insufficient specialized attention has been given to advance framing of programmes and schemes. The problems faced by the Planning Commission in developing plans in detail are aggravated by complications of distances in the country, and by shortage of trained staff in the Commission itself, as well as in the Central Ministries and Provincial Governments. Both the First and the Second Plans are disproportionately the work of the Central Government. To some extent this is rectified in the more detailed processes of preparing the annual development programmes and scrutinizing schemes by the Development Working Parties, where the Provincial Governments are represented, but the machinery for coordinated preparation of long-range plans requires much improvement.

21. *The allocation of responsibilities within the Provincial Governments.*—It is assumed that at the head of the Provincial Governments, full administrative responsibilities will rest with the Governors. In view of the relatively large number of layers of administration existing in the Provinces, the problem of efficient allocation of responsibilities and of trained personnel is one of considerable complexity and importance. In the long run it may well be found that the number of layers is excessive for the administration of development programmes, which involves much more difficult problems of coordination than does law and order administration.

22. The institutions of Basic Democracies leave much flexibility as to the locus of functions. The crucial areas for the emergence of a democratic pattern of administration will most logically be at the *tehsil* or *thana* level, where the elected chairmen of the union councils will be in a strong position to represent the views and interests of the people ; and at the district level, where any disparities between parochial issues and broad provincial and national interests will presumably be resolved in the first instance. The Provincial Reorganization Committee has recommended that the district should be the key unit for development administration ; accepting this, it will still be desirable for powers to be delegated as far as possible to councils at lower levels. To the greatest extent possible, the Plan targets will need to be broken down into targets for local administrative units. Although this applies to some extent to all targets it is particularly relevant to targets of agricultural production. Progress towards meeting targets will need to be appraised in terms of performance. Lessons from the more successful administrative units will need to be applied to the less successful ones and various devices for stimulating production in lagging areas will need to be tested. The centres at which specialized professional staff should be concentrated for planning, advice, and appraisal will have to be selected on the basis of practical considerations, particularly of the distances involved.

23. *The institutions of Basic Democracies.*—The institutions of Basic Democracies are devised to provide not only for self-government at the local level, but also for a degree of public representation in administration

successive levels. This introduces a new element not ordinarily encountered in administration. Although it may be assumed that there is an advantage in elected representatives participating in the process of executing plans originating from higher authority, Basic Democracies will become meaningful only if a measure of local programme planning and policy formulation rises upward to the points at which governmental decisions are taken. This kind of participation can be most fruitful, but it is clear that only through a high degree of care for the objective of democratic decentralization, and through exercise of imagination, patience, and administrative skill, will the desired results be even remotely possible. It is probably in development planning that the best opportunity exists for democratic participation. The easy course would be simply to continue to do all planning at or near the top of the hierarchy, and to use the machinery of Basic Democracies essentially as an instrument for obtaining consent for decisions taken at the Centre and in the Provincial capitals. Getting participation in planning at local levels will be much more complicated, but the effort, if vigorously and consistently pursued, will be rewarding in the long run.

Administrative organization and procedures

24. The First Plan dealt at some length with certain characteristics of Central and Provincial administration which were considered to be ill-adapted to contemporary needs. Strong recommendations were made for modifications of the administrative system towards clear-cut organization, and broad delegations of authority, with staff officers removed from the line of command. Many checks and balances and time-consuming discussions at lower levels were to be eliminated.

25. Several important steps were taken in the direction of these recommendations during 1959. Reorganization bodies were set up by the Government to overhaul the Central and Provincial administrative machinery. The principle was accepted, and is being steadily enforced, that the Ministries of the Central Government should deal exclusively with questions of policy, and shed executive functions to the appropriate operating departments. Departmental officials were authorized to carry out administrative functions hitherto performed by the Secretariats of the Ministries. Although it is never easy, and may not always be desirable, to maintain a rigid distinction between policy framing and executive functions, care will have to be continually taken to ensure that over-centralization of authority does not hamper effective field operations, which, in the final analysis, must remain the testing ground for all administrative action. In this context, importance attaches to the recommendations made by the Provincial Reorganization Commission for decentralization of authority to divisional commissioners and to district officers.

26. A major reform in the handling of all cases in the Secretariat is the introduction of the section officers system, which eliminates the older procedure of noting on cases by assistants and superintendents. A single

section officer is now assigned the task of preparing cases for consideration by responsible officers. Similar steps were taken to assure that cases originating in the Departments move consistently up the administrative ladder to the decision-making authority, and are not shunted subordinates on the way. These changes should speed up the administrative process considerably.

Budgeting and financial controls

27. The First Plan stressed the need for improving the budgeting process as an effective instrument of development administration. During most of the Plan period little progress was made. A kind of dual budgeting has existed in development programming: a programme budget constructed for the requirements of the annual development programme, and a fiscal budget prepared essentially for financial management. Effective control of the implementation of long-range plans can be possible only when long-range programmes are broken down into annual development budgets which become an integral part of financial management. An important step has been the requirement that no schemes may be included in the annual budget which have not been incorporated in the annual development programme in accordance with approved planning procedures. There is also need for improved coordination between development programming and foreign exchange budgeting. A pre-condition of successful implementation of development programmes is that a consolidated foreign exchange budget should be synchronized with the preparation of annual development programmes, and that the budgetary provision for rupee finance should carry with it the foreign exchange allocation in the foreign exchange budget.*

28. A key proposal of the First Plan was that the exercise of financial controls should be expedited and the multiple checks which hold up effective implementation eliminated. Reforms of this nature were not undertaken promptly with the result that delays and frustrations have contributed to some of the failures in implementation of the Plan. In 1959-60 on the recommendation of the Central Administrative Reorganization Committee, the Government took a series of decisions of far-reaching importance to reform the system of budgeting and financial controls. The place of budgeting as an instrument in the administration of development was recognized. Directives were issued that budgeting should become a continuous process, and that preparation of the budget should begin twelve months ahead of the financial year to which it relates. Steps were initiated for improvement of the accounting system; and it was decided that urgent consideration should be given to departmentalization and mechanization of the system, and to the introduction of concurrent audit. Most important, it was decided to abolish the system of expenditure authorization by the Ministry of Finance prior to commitment of budget appropriations. The administrative Ministries were empowered, with some minor limitations, to sanction expenditures within the budget grants without reference to the Ministry of Finance. The Secretaries to Government were appointed "principal accounting officers" and a system of financial advising was built into the Ministries to promote efficient

*See Chapter 4.

management. At the same time, considerable delegations were made to the Ministries of powers hitherto reserved to the Ministry of Finance. Major handicaps to effective implementation of development programmes were thus removed, and the responsibility for controlling key expenditure was shifted to the administrative Ministries. This new authority should provide the Ministries with the necessary means for prompt action.

29. Similarly, a variety of financial powers hitherto reserved to Ministers are to be exercised by the heads of Departments ; the Provincial Reorganization Commission proposed similar delegation of financial powers by the Provincial Governments to Divisional Commissioners. These measures should be promptly implemented.

30. Another important reform was the strengthening of the system of Development Working Parties, in which the representatives of the Central Ministries, the Central or Provincial Departments and agencies (where appropriate), the Ministry of Finance, and the Planning Commission together scrutinize development schemes and programmes. This has simplified the process of governmental approval, and has eliminated much-criticized delays. The creation of similar machinery in the Provinces, as proposed in the report of the Provincial Reorganization Commission, is strongly recommended.

31. The effect of measures taken, or to be taken, for improving budget processes and financial controls should be studied to ensure effective application, and to assess possibilities of further delegation of powers. Further integration of the planning and budgeting processes should be set as an objective to be realized to the maximum extent possible, so that annual development programmes are clearly distinguishable in the budget, and their relationship to the Five Year Plans more clearly identified.

The role of the public services

32. Much controversy has raged in the past about the suitability of a generalist service, like the Civil Service of Pakistan, to handle the complex problems of modern administration, requiring, in many instances, a broad-based understanding of technical processes, if not a positive degree of technical competence. Without attempting to set out the arguments in detail it can be stated that partly in view of well-established administrative traditions, and partly in the context of the special conditions of this country, reliance must continue to be placed on the generalist, with his variety of experience and freedom from constrictingly specialized bias, as an effective instrument of government. What is needed is not the elimination of the generalist, but a broadening of his horizon and a reorientation of his training to enable him to meet the new demands that the complexity of a dynamic development administration must inevitably place on his talents. Concurrently, it is of paramount importance to promote further the change (which is already apparent) in the outlook of the civil servant in relation to the welfare aspect of his responsibilities. There are indications that both these

37. An important task for both the Central and Provincial Governments is the preparation and current maintenance of organization charts and descriptive statements of the powers and responsibilities of the principal units of government ; these do not now exist except partly in compressed statements in the Rules of Business. Their preparation and maintenance by Organization and Methods units would be invaluable in clarifying existing responsibilities, and in bringing to light uncertainties and overlapping in delegations of responsibility. A number of experts who have studied public administration in this country have found that lines of responsibility in many instances are not well defined, with consequent loss of energy in administration, and insufficiently clear accountability for results. Systematic organizational mapping will help to eliminate such problems. It is also necessary in a government machine with expanding responsibilities to establish a system of orderly review of the creation of new agencies of administration, to prevent excessive proliferation, and to enforce a logical pattern of administrative organization.

38. There is, and will continue to be, room for substantial improvement in office management throughout the government machine. Office management specialists should be an integral part of the Organization and Methods units.

Personnel administration

39. The problem of filling the personnel needs of the public service is not so much of interesting the most talented in government employment (although the competing attraction of more remunerative business careers is making this increasingly uncertain), as of making up somehow for the shortage of skilled personnel through training and economical use of available talent. Trained personnel is a very scarce resource, and is likely to continue so for some time to come. The most careful attention to personnel selection, training and use is therefore imperative and is certain to pay large dividends.*

40. The First Plan emphasized the need for developing a strong personnel agency at the Centre and in the Provinces with comprehensive responsibilities for all aspects of personnel management, including manpower planning, recruitment, training, placement, employee welfare, job classification, and disciplinary regulations and appeals. The Plan proposed that the Public Service Commissions should be strengthened to assume this role, but this has not been done. Nor is it now so certain that the Commissions should be given responsibilities which other agencies can competently discharge. Meanwhile, at the Centre the Establishment Division has gradually expanded its role. It now seems more logical that the personnel responsibilities of the Establishment Division, and of comparable units in the

*See Chapter 14, Education and Training ; Chapter 16, Manpower and Employment; and Chapter 7, Agriculture, in which the vital question of training of agricultural personnel is discussed.

needs are now well recognized by the Government. It is essential also that there should be a closer and better adjusted association between the generalist and the technician in meeting the challenge that the requirements of modern government present to the administration as a whole.

33. An unchanging administrative machinery will not be effective for all times under all conditions. With the developing complexity and multiplicity of government, activities, new means must be found to adjust the administration to new needs. This principle is reflected in the decision taken by the Government in 1959 to create an Economic Pool, consisting of selected officers of the Civil Service and other specialist services who will provide staff for the Ministries of Finance, Commerce, and Industries. A shift from the generalist towards a more specialist approach is also implicit in the recommendation of the Central Administrative Reorganization Committee that the Ministries of Education and Health should be manned exclusively by members of the education and health services.

34. Proper recognition has not been given to the urgent need for attracting high technical talent to meet the expanding requirements of a modern administration. Status and salaries offered by the Government to technicians are well below their market value ; there is a serious danger that if this state of affairs continues, the vast development programmes that are being increasingly undertaken in the public sector will greatly suffer in execution. Consideration should be given to the constitution of well-paid, superior Central services, with prospects of a good career, which will provide strong and competent cadres to serve the higher technical needs throughout the country.

35. Both in the case of technical and non-technical services, it is essential that the age of superannuation should be substantially raised. With the general improvement in health standards, the agreement of an early deterioration in the physical condition of government servants, particularly those belonging to the higher services, no longer applies. Meanwhile, the Government is rapidly losing the much-needed services of its officers through retirement at an age when their experience is most valuable.

Organization and methods

36. The Central Administrative Reorganization Committee has proposed the creation of a standing committee to watch the working of the machinery of government and to advise the Government continually on its organizational structure, functions and administrative processes. The need for such a body, at the Centre as well as in the Provinces, is endorsed by the Second Plan. The growing and changing requirements of public administration cannot be satisfied without continual and imaginative attention at the highest level. Administrative planning must assume a role comparable in importance to that of economic planning, if the Plan is to be effectively implemented. This also requires staffing of the Organization and Methods units at the Centre as well as in the Provinces with well-qualified experts in administrative management, strongly supported by consultants in specialized fields as required.

Provinces, should be reassessed, and that additional grants of authority should be made to them as needed for a comprehensive personnel administration.

41. The task of personnel management is becoming increasingly difficult not only because of the growing size of the government machine but also because of the introduction of new concepts of administration in the Basic Democracies programme. Ideas of democratic administration can be introduced throughout the services only through well-planned training programmes over a period of years. This in itself will require a major effort on the part of the personnel agencies.

42. The institutional resources for pre-entry and in-service training in various aspects of public administration have been much strengthened during the course of the First Plan, and are being further strengthened. The current position is as follows :—

- (i) The Civil Service of Pakistan Academy, and the Finance Officers Training Academy provide specialized pre-entry training for the probationers selected for entry into these superior services. The curricula of these academies are to be fortified to give more specialized attention to the problems of administration encountered in development programmes.
- (ii) The Academies for Village Development provide post-entry training for officers at intermediate levels in the problems and techniques of development administration.
- (iii) An Administrative Staff College has been established for research, organized consultation, and formal courses for senior officers.
- (iv) The Institute of Business and Public Administration at the University of Karachi provides graduate training in these subjects. Additional institutes for graduate training in public administration and for the in-service training of gazetted officers at subordinate level are to be created at Rawalpindi, Lahore and Dacca. Undergraduate courses in public administration are to be initiated at the Universities of the Punjab and Dacca.

An administrative training council is to be created to ensure coordination of the various administrative training programmes, and to advise on future planning.

43. Continuous review of the effectiveness of these institutions as well as determination of the need for new institutions to meet the training requirements of the public services should be an important function of the Central personnel agency. This agency should also have general responsibility for critical and disinterested evaluation of the quality of work being done by the superior services as a whole. This can be done only if the agency is staffed by trained personnel experts who are not themselves committed to any of the specialized cadres. In such an examination it may well be found that the conception of the sources from which the services are being filled are too narrow to meet the growing and varying needs of administration,

or that the efficiency of the services is being impaired by arbitrary limitations on opportunities for training and advancement.

Public corporations and authorities

44. By 1955 several public corporations, including notably the PIDC and various agencies in the field of finance* had already been created for the execution of governmental operations requiring flexibility in management. The First Plan recommended further experiments in this direction : water and power development authorities were proposed for both East and West Pakistan, to assume responsibility for integrated planning, construction, operation and management of water supply, power and reclamation programmes. The West Pakistan WAPDA was created in 1958, and the East Pakistan WAPDA in 1959. The Inland Water Transport Authority was created in East Pakistan in 1958 with broad powers. A Forest Industries Development Corporation was set up in East Pakistan in 1959. In West Pakistan, the Road Transport Board was formed in 1957. (The Plan had recommended that road transport should be developed by private capital). The corporate form of administration has also been adopted in small and cottage industry development where the Small Industries Corporation was established at the Centre in 1955 ; the East Pakistan Small Scale Industries Corporation in 1957 ; and the West Pakistan Small Industries Corporation in 1960.

45. The ability of corporations and authorities to plan and execute programmes has been effectively demonstrated. Some deficiencies in performance, however, are pointed out in the discussion of various programmes in other chapters. The general problems which arise are especially in the area of (i) effective policy control by Government and (ii) coordination with other agencies and departments engaged in other developmental activities. The whole structure of administration built upon Basic Democracies, for instance, could be upset if it is criss-crossed with a pattern of authorities assigned specialized developmental functions (particularly in the field of agriculture) which are withdrawn from the general context of local development planning and administration. This needs to be watched most carefully. The advantages of resorting to quasi-autonomous agencies in order to get quick results will have to be weighed in each case against the dangers of undermining the effectiveness of administration through already established channels. On the other hand, where it is found that corporations and authorities can function usefully within defined areas and defined systems of coordination with other governmental units, they should be given the maximum possible administrative flexibility, and their internal management left entirely in their own hands. Because the corporations and authorities, both existing and those to be established in the future, will be spending a large part of the allocations for the public sector made in the Second Plan, a great responsibility rests on them to ensure that public funds are expended to best advantage and in accordance with government plans. Economies in expenditures and good management of finances should be regarded as a crucial test of their efficiency.

*See Chapter 3, Fiscal and Monetary Policy, and Chapter 7, Agriculture.

CHAPTER 6

RESEARCH AND STATISTICS

RESearch and scientific inquiry are inseparably linked with development and economic growth. The rate of economic development is related to the extent and vitality of technological research. These relationships are recognized in the Plan, which lays emphasis on research on natural resources, food and agriculture, irrigation and power, industry and technology, manpower, public health and medicine, housing, and the problems and techniques of development administration. The research function in the universities, in specialized institutions, and within the government itself, will receive new impetus. The Plan recognizes the need for more effective organization and support of basic and applied research in physical, biological and social sciences. In the assignment of priorities, care must be taken to distinguish between those fields in which knowledge is readily transferable from one environment to another and those in which domestic problems differ in physical or in social terms from those which are confronted elsewhere. Modern methods of research are both qualitative and quantitative in nature, and are applied in the laboratory as well as in the field. Both laboratory experimentation and field investigations require advance planning of facilities and personnel, and also analysis of mass data which can be derived primarily through the statistical services of the Government.

2. The First Plan stressed the importance of university research and the development of special institutes for physical and biological research, for the social sciences, and for cultural studies. It also underscored the need for efficient statistical services. The Second Plan reaffirms these needs.

3. In recognition of the limitations of research effort within operational departments, the Central Government has set up various independent or quasi-independent research agencies. These include the Zoological Survey of Pakistan (1947), the Cotton Committee (1948), the Food and Agricultural Council (1949), the Jute Committee (1950), Pakistan Medical Research Council (1953), the Council for Scientific and Industrial Research (1953), and the Atomic Energy Commission (1955). These agencies are similar in structure although their powers and methods of working are different. The Cotton Committee finances itself by a cess on production, but the other bodies are almost wholly financed by the Government. Research under the Provincial Governments has been negligible. In the Plan the research requirements in the applied fields of science and engineering are outlined in some detail in the chapters on Agriculture, Water and Power, Industry, Fuels and Minerals, Health, and Housing and Settlements. Specific problems are identified to which well planned research should be directed. Also, a series of proposals have been made in the Plan for the creation of new institutions to undertake research in several fields. Progress in technological research has hitherto been hampered by lack of organization.

4. The research effort since Independence, although tangible, has been limited, fragmentary and slow. The scattered activities of the established research agencies should be interrelated within a coordinating mechanism which should provide direction and support for national policies in scientific fields. In addition, it is necessary to develop an effective national system of government statistics. Outside the Government there is a dearth of scientific and industrial research in private industry designed to raise output and improve the quality of products; such research should be encouraged and extended.

Research in social sciences

5. Research in social and economic problems is at present conducted both within and outside the Government. Within the Government, research is largely intended to assist in the determination of administrative policies, the evaluation of programmes and projects, and the planning processes. But the quality of research is uneven, and its range is not extensive. Provision is made at many points in the Plan for the improvement and extension of research within the government agencies. Outside the Government, research in the several disciplines of the social sciences is being carried out in the universities and under the auspices of a few independent research agencies. Here again, there is considerable room for extension and improvement. The preparation of a comprehensive research programme itself is a task for research.

6. More intensive research on the problems of economic development will be necessary to provide the factual and analytical base for planning and administration. Studies should be undertaken wherever possible in anticipation of emergent problems and important decisions. Research on income distribution is necessary to forecast future resources for development and to guide policies for reducing inequalities. Studies are required for the improvement of basic data for national income estimation, for breakdowns of income estimates for various sectors of the economy, and for appraising the impact of the development programme on national income. Research on patterns of consumption at different income levels is needed as the basis for forecasts of demand in planning production programmes and in measuring the effects of development on welfare. The progressing and evaluation of agrarian reforms require the support of continuing research on land holdings and existing tenant-landlord relations. Studies of the social impact of technological changes will provide the basis for measures to prevent the development of social tensions.

7. The Plan provides for the expansion of university research. Institutes or centres for research in the social sciences are in early stages of development at the Universities of Karachi, Punjab, and Dacca. Such centres need to be strengthened, and more centres should be established in the other universities to cover the vast field of research open to them. It is assumed that the universities will enlist the co-operation of all disciplines in their research undertakings and will not compartmentalize research in the manner

regretfully prevalent in technical departments. It is also desirable that the university research facilities should be used on a fee but non-profit basis by the business community as well as the Government.

8. Provision was made in the First Plan for the establishment of a council for research in social sciences, but no action has been taken. This important step should no longer be delayed. The council should have as its purpose the advancement of a broad research programme in social sciences and assistance to the Government in the application of the results of research to problems of development. In particular, promotion of demographic research should be a part of the council's responsibilities. Development of a broad programme of urgently needed economic research will require cooperative effort on the part of the council and other research agencies in the country.

Special libraries

9. Development of special library services is essential to support research. In any scientific and technical field the accumulated resources and current flow of literature and reference materials is too vast and complex to be coped with by individual workers. This service should be accompanied by the pooling of reference materials through inter-library loans, union lists and catalogues, and cooperative bibliographical work. By these means the informational resources of individual agencies can be greatly augmented. International reference services are increasingly available to assist the trained special librarian. As special libraries are developed, the need for a central catalogue will become more pressing.

Statistical development

10. Significant statistical advances were made in the First Plan period. In 1956 the National Sample Survey was established as a part of the Central Statistical Office (CSO). The survey organization has made progress ; it needs to be further strengthened, especially for work in urban areas. The West Pakistan Statistical Bureau, set up in 1957, has undertaken certain important surveys and has developed its internal operations. Other recommendations of the First Plan which have been implemented include the agriculture and livestock census, extension of census of manufacturing industries, and creation of an organization for improving educational statistics. Some progress has been made in the teaching of statistics ; in-service training was started by CSO, and fellowships for foreign study were granted. Statistical coverage has not, however, been as comprehensive as is required by present day standards. With few exceptions, the Second Plan faces much the same deficiencies of data as the First. Principal deficiencies are in estimates of population; figures of agricultural output are subject to large margins of error ; statistics of manufacturing industries reveal wrong reporting by industrial establishments in many cases; and published data on trade are incomplete.

11. A number of new series are needed in order to extend statistical information. Regular statistics of fisheries, forestry and livestock are not yet available. The collection of current statistics on labour and employment is still confined to Karachi, and only limited information is available on the occupational composition of the labour force. Little is known about wholesale and retail trade. There are no reliable estimates of gross capital formation, and no estimates of national income at current prices have been published since 1954-55. A general index of prices is lacking and the basic-price data must be improved.

Standard definitions and classifications

12. Confusion is created when different departments compile and use figures which appear to relate to the same concept but are differently defined. Trade and balance of payments figures are compiled by CSO and the State Bank but there are marked differences in coverage and classification; some figures for trade are compiled on an f.o.b. basis, others are partly f.o.b. and partly c.i.f., and reconciliation of the data is not always easy. Figures of development expenditures reported by various departments are difficult to correlate because of differences in definition, methods of compilation and sources of information. The unnecessary classification of some commodity imports as defence goods results in distortion of commodity totals. Indefiniteness of classifications in budget accounting and the maintenance of large suspense accounts for long periods creates difficulties for economic analysis.

13. Whenever possible greater comparability, not only within the country but internationally, should be given to statistical series by the strict observance of standard definitions and classifications. This applies, for example, to the widely accepted classifications of industry, commodities, international trade and national income prepared by international organizations. The improvement of statistical series frequently requires alterations in the basis of compilation; when this is done it is important that overlapping figures should be provided and new methods of computation extended backwards to earlier years whenever possible. To facilitate the interpretation of data, it may also be useful to develop seasonal corrections for fluctuating series. The value of statistical data is greatly increased when they are published with minimum delay. Some statistics are compiled and released with commendable speed, but much improvement in this respect is necessary.

Statistical agencies

14. It is neither feasible nor desirable to consolidate all statistical operation of the Government within a single agency. The division of responsibilities between the Central and the Provinces, and the differences between the Provinces themselves, suggest a system that will permit handling of statistics at different points. To cite an example, the development of statistics of water transport can hardly have the urgency for West Pakistan that it may have in the East. Furthermore, the collection of statistics is carried out by various agencies which also maintain and analyze data for purposes of managerial control, evaluation and public accountability. This

practice has considerable advantages. Indeed, it is imperative that there should exist statistical units (as a part of the planning cells) in all Ministries and Departments concerned with development responsibilities. But it is essential also that the Central Statistical Office should act as the national statistical authority for developing a comprehensive and integrated programme. It should be able to draw upon the material collected by the other agencies and it should be entitled to coordinate the work of all agencies in the collection, maintenance, and analysis of statistical information.

15. The responsibility for planning and coordination, assigned to the Central Statistical Office, is sharply distinguished from the direct conduct of statistical projects and surveys. Planning and coordination by CSO requires an evaluation of needs ; the development of generally applicable statistical standards ; uniform definitions and classification systems ; clearance and scrutiny of proformas and survey plans ; and allocation of agency responsibilities to fill gaps in the services. The role of the friendly umpire is often necessary, and mandatory sanctions may sometimes have to be applied in the enforcement of standards and quality.

16. The Central Statistical Office should undertake those large scale operations and projects whose scope and content are broader than the specialized interests of agencies. Statistical operations often require utilization of field forces and tabulating units, the pooled use of technical talent, as in the field of sampling, and direct assistance to many agencies. These facilities should be made available by the Central Statistical Office.

17. The activities of the Central Statistical Office should be intensified to carry out effectively its primary functions : (i) giving technical advice to the Central Ministries on the collection, maintenance and analysis of statistical information to ensure standardization of information collected, and a fuller utilization of data collected by various statistical units ; (ii) providing mechanized facilities available in the Central Statistical Office to Ministries and Departments for the tabulation of statistical data ; (iii) coordinating the work relating to planning, production and publication of statistical information ; and (iv) providing training facilities in statistics. The Central Statistical Office should maintain close liaison with the Provincial Governments.

Training and career service

18. There is need for improved training in statistics. Training is needed both in the techniques of statistical operations, and in statistical methods. Acquaintance with mathematical techniques and analytical tools is not enough. To a great extent statistical operations have become large scale undertakings, requiring a high degree of management. Two statistical training institutes are needed, one in each Province, to provide both academic and in-service training, in collaboration with governmental statistical agencies, and perhaps also with the universities. The institutes should be open to business and other private establishments for the training of their personnel.

19. It is necessary that the permanent importance of research specialists and statisticians to the future of the country should be recognized, and three regularly constituted services of scientists, economists, and statisticians should be established. These classes of personnel, at present in the employment of the Central and Provincial Governments, do not belong to well-defined cadres; they are usually recruited on an *ad hoc* basis and are not governed by uniform rules of classification and promotion. Uncertainty of prospects frustrates the legitimate aspirations of the service personnel and adversely affects the supply and quality of future entrants. The nation's requirements for research and statistical development must command the services of the highest levels of professional talent.

Standing advisory council

20. It is proposed that a standing advisory council, consisting of the principal statistical agencies of the Government, and the principal users of statistics, should be appointed to keep under constant review the organization, efficiency and adequacy of the statistical services, and the establishment of statistical standards.

PART II

DEVELOPMENT OF PHYSICAL RESOURCES

DEVELOPMENT OF PHYSICAL RESEARCH

CHAPTER 7

AGRICULTURE

Policy and administration

AGRICULTURE is viewed in the Plan as a comprehensive operation which, in its broad sense, includes crop production, animal husbandry, fisheries, forestry, and the associated mechanisms such as land reforms, rural credit, co-operation, marketing, and Village AID. The Village AID organization, though not exclusively concerned with agriculture, is an instrument which directly promotes agricultural development.*

2. In the First Plan the paramount importance of agriculture was clearly recognized ; the Second Plan calls for an even more ambitious programme on the assumption that until agricultural productivity is vastly increased, general economic growth will be stunted. To overcome the physical, administrative and technical difficulties that have hampered progress in the past, the Plan proposes a shift of resources, including executive talent into agriculture. The agricultural programme 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 ;
- (v) increasing employment opportunities and reducing under-employment in agriculture.

3. At the core of the agricultural programme is the determination to feed the nation with food grown on its own soil. While this policy is justifiable on such non-economic grounds as national self-respect, it also has solid economic motivations. Yields of foodgrains in the country are among the lowest in the world ; and yet comparatively simple practices as well as higher technology for raising productivity are well established and only waiting for application in the field. Few investments offer so rich a return as does the increase in foodgrain production. Concurrently, it is essential that production targets for such exportable agricultural commodities as jute, cotton and tea be maintained at optimum levels. All available means will need to be employed to increase output and improve quality, but the principal need is to achieve higher yields through effective combinations of management, labour and material inputs.

*See Chapter 18.

4. Production must be promoted by suitable incentives. Price, procurement and distribution policies are key elements in the programme for attainment of foodgrain self-sufficiency. The Government decisions towards this end should continue to be guided by four objectives :

- (i) provision of adequate incentives to grain producers through a system of attractive prices guaranteed over a term of years ;
- (ii) reduction of direct Government costs by transfer of marketing activities to private trade and by lowering subsidies to consumers ;
- (iii) protection of the public against grain shortages and price exploitation by developing a substantial reserve stock programme ; and
- (iv) continuation and intensification of smuggling controls.

5. Because emergency conditions demand emergency action, the Plan recommends the use of short-run techniques for stimulating agricultural production. But the more distant future is not neglected. Looking many years ahead, the Plan accords a prominent role to agricultural education and research and the development of water resources. Further studies as to how agricultural production is to be effectively increased are being carried out and will be co-ordinated with the conclusions of the Food and Agriculture Commission which was appointed by the Government in 1959 to make a full-scale examination of agricultural problems.

Organizaton for agricultural development

6. Failure to achieve the major targets of the First Plan was due to several causes, not the least important being the personnel policy in the Government agricultural services that militated against attracting and retaining a corps of talented technicians. By and large, the Government machinery for implementing a strong development effort in agriculture was not suited to the times, nor to the scale of the problem ; sound principles of administration were not consistently observed in the agricultural sector during the First Plan period.

7. Firm policy co-ordination at the Centre is the first essential. It should now be possible to provide the required co-ordination through the recently established National Rural Development Council, which is composed of Ministers and representatives of the nation-building Ministries and the Village AID organization. It should be recognised, on the one hand, that rural development requires a comprehensive approach and, on the other, that agricultural production is the central problem. The Village AID organization provides a common service to all parts of the Government machine. Its essential purpose is to discharge the specific, if difficult, duties of rural rehabilitation. Village AID, in collaboration with Basic Democracies, should furnish a rallying point at all levels for administrators, technicians, and representatives of the people.

Introduction

THE physical basis for the economic development of the country is found in its land, water, mineral reserves, its productive capacity in food and raw materials, and in the factors of climate and terrain which condition their use. These resources are wide in variety, and the environmental factors present great contrasts.

2. The land area of Pakistan is a little over 230 million acres, which is slightly more than one-fifth of the Indo-Pakistan sub-continent. About eighty-five per cent of the total area lies in West Pakistan, but a quarter of its land is classified as unavailable for cultivation ; less than one seventh of East Pakistan's area is so classified. Slightly less than four per cent of the country is forest land, and of this area more than half is in East Pakistan.

3. East Pakistan is a flat deltaic plain laced by a dense network of water courses with shifting and unstable beds. Annual floods of varying intensities are a normal feature of about one-third of the cultivated area. Average yearly rainfall of 76 inches is unevenly distributed, the highest incidence at 226 inches being in parts of Sylhet and the lowest at about 53 inches in Rajshahi. About five-sixth of this torrential rainfall comes during four or five monsoonal months. In West Pakistan the annual rainfall varies from 30 to 40 inches in the northern piedmont tracts and dwindles to less than 5 inches in the southern plains, but the periodic deviations from the annual mean are large. Extensive upland desert and mountain areas are barren, with wide ranges in temperature, low humidity and strong winds.

4. The Provinces of East and West Pakistan are separated by a distance of some 1,200 air miles. Each Province has a limited sea-coast, and the two major ports of the country, one in each Province, are separated by nearly three thousand miles of sea. Overland surface movement of persons or goods is practically non-existent, and bulk transportation in any form is difficult, slow and costly. Any considerable movement of population between the parts is impracticable, except for limited numbers in key activities.

5. In East Pakistan the pressure of population on the land is severe and little additional acreage is available for cultivation. Hence the key problem in this Province is the increase of productivity. In West Pakistan there are still large areas to be brought under cultivation through extended irrigation facilities. The radically different characteristics of the two parts of the country result chiefly from the superabundant rainfall in East Pakistan contrasted with the arid nature of West Pakistan. Alternating floods and drought, and salinity from sea-water in some areas, are problems in East Pakistan. Waterlogging and salinity threaten the soil in many areas of West Pakistan, and erosion takes a heavy toll. The principal crops of East Pakistan are rice, jute, tea and sugarcane ; those of West Pakistan are wheat, sugarcane, and cotton.

6. Until recently the known mineral wealth has been confined chiefly to salt, chromite, limited supplies of oil, and some coal and iron ore of medium or low quality. These reserves are mostly in West Pakistan and are concentrated in the less developed regions. Exploration for new reserves is continuing. The most important recent advance is the discovery of large resources of natural gas. Hydro-electric power resources in existence and under development are considerable.

7. The following chapters deal in a specialized manner with the physical resources of the country and the programme for their development in the Second Plan period.

8. In the Provinces, the Additional Chief Secretary or Commissioner in charge of the Planning and Development Department should exercise overall policy supervision of departments responsible for various aspects of agriculture (including animal husbandry, fisheries, forestry and co-operation) and also of the Village AID organization. Direct supervision of these departments should be the responsibility of a Director-General of Agriculture and an Administrator of Village AID of sufficient seniority to lend higher status to these organizations because of their important role in the development of the country.

9. Below the Provincial Government level, the governing principles should be that : (i) the contribution of District Magistrates and Deputy Commissioners to rural development, not inconsiderable at present, will be increased ; (ii) there will be a substantial enlargement of extension services ; (iii) the momentum and capabilities of Basic Democracies will be harnessed in collaboration with Village AID ; (iv) conflicts among departments will be resolved, while competition for excellence of performance will be encouraged ; and (v) agricultural production will be sponsored at the only place where it can ultimately take place, *i.e.* in the villages.

10. Agriculture needs skills and a sense of dedication. These qualities must be sought out in the Government agricultural services and rewarded in keeping with the importance of agriculture at this stage of the country's development. There is need for reconsideration of the emoluments and promotion policies applicable to the agricultural services, and for equating the status of agricultural administrators and technicians to that of the other professional personnel. This is especially important in building up and maintaining a strong cadre of agricultural field workers.

Programme acceleration

11. The Plan programme is designed to deal with the essential problems of agricultural development on a broad front, but it assumes that special efforts will be made to accelerate development, within the frame-work of the Plan, through application of certain high impact devices to areas of particular and immediate promise. Two such devices, discussed below, offer good prospects in the short run. But the fundamental purpose of these devices must be to provide a large scale testing ground for programming methods, with a view to their extension to the entire country with such modifications as the success or failure of the experiment may suggest. The experiment must be observed and evaluated at all stages ; otherwise there will be no way of checking the results.

Co-operative farming and land management

12. Co-operative farming is one device for accelerating agricultural development. Co-operative farming helps in overcoming limitations of small and scattered holdings, and is a means of increasing the size of the unit of cultivation, which should facilitate mechanization of agriculture ; it ensures better farming, better marketing, and better credit facilities to the farmers. The

First Plan considered that co-operative farming was not a practical means of accelerating agricultural development in the short run, because it would certainly be unpopular among a people with a strong sense of independent action and private ownership. The All-Pakistan Co-operative Conference, held in 1957, however, attempted to differentiate between various types of co-operative farming, and to specify those which might usefully be adopted. The Conference classified co-operative farming societies into four categories :

- (i) those which take over from the members proprietary rights of the land and its management ;
- (ii) those which allow the proprietary rights to be retained by the members, but assume the land use rights and management ;
- (iii) those which allow the members to retain the proprietary rights as well as land use, but undertake to supply their requirements of fertilizer, seed and implements, arrange for marketing the produce and lay down the cropping pattern to be followed by the members ; and
- (iv) those which only supply the members' requirements, but do not control the cropping pattern.

The consensus of opinion at the Conference was that the farmers were not ready to accept co-operative farming societies of types (i) and (ii), but that types (iii) and (iv) might prove to be acceptable.

13. The first experiment in co-operative farming in the country was organized by the Co-operative Department in 1948 in the former Punjab as a means of resettling displaced persons. It covered 178,000 acres and allotted 12-1/2 acres to each farmer. The farmers became members of a co-operative society which provided interest-free credit to buy agricultural supplies and materials for constructing houses, godowns for the storage of produce, irrigation facilities, maintenance of improved implements, and even provided marketing services to the members. The society provided social services like mosques, schools and drinking water. The Planning Commission in April 1959 made a study of the Punjab experiment and found that it has undoubtedly achieved a measure of success. An element of compulsion is implicit in the scheme, but for a poor and backward peasantry a certain amount of guidance and supervision seems inevitable if co-operative action, however limited in scope, is ever to make any headway. This type of scheme, efficiently organized and zealously directed, can be an effective solution to colonization and land management problems. Experience suggests that results can be achieved by granting proprietary rights initially to the co-operative farming societies, with a firm assurance that these will be transferred to the farmers as soon as they can pay the purchase price of the land ; by appointing agricultural experts to assist in determining cropping patterns and the utilization of fertilizers and improved seed ; and by discouraging the collection of rent in kind. Co-operative land management on the lines of the Punjab experiment should be introduced in other areas, particularly the areas recently opened up by the large irrigation projects.

Where introduced, the scheme should be placed under a general manager with experience of co-operative work, who should be assisted by agricultural and other experts of appropriate status and qualifications. Although the staff requirements for the implementation of the scheme will have to be worked out in detail, ordinarily a co-operative village of 100 cultivators should employ a wholtime manager ; and a group of villages should be placed under the supervision of an officer of the Co-operative Department, assisted by an agricultural specialist. The staff should be paid by the Government for the first few years, after which the societies should take over the liability by stages.

Saturation programme

14. Another device of considerable utility for increasing agricultural production is saturation, or area concentration. It involves a careful choice of locations, and the application of a balanced combination of the key factors of production to those locations. While the details of a saturation programme will need to be framed carefully after full consultation with agencies responsible for the development of agriculture, the following general guidelines are proposed for such a programme :

- (i) The areas for concentration should be selected on the basis of a high potential for quick expansion of agricultural production. They should be large enough for conclusive results and should preferably be co-extensive with existing administrative units, *e.g.*, the district in West Pakistan and the sub-division in East Pakistan.
- (ii) The Deputy Commissioner or the District Magistrate, as the case may be, should have full authority and responsibility for the programme within his district.
- (iii) The prime unit for implementation of the programme should be as close as practicable to the villages, specifically at the Union level. For easy access by the farmers, supplies and credit services should be centred at least at Union headquarters, if not at a lower level. Plentiful supplies of fertilizers and good seeds should be stocked in depots located as far as practicable in the same premises as the credit agency. Credit should not be issued in cash ; vouchers acceptable only for the purchase of fertilizer and seeds should be issued instead. Credit is a critical element in this type of programme. Co-operatives should, in line with national policy, become the vehicle for rural credit and should relieve the Agriculture Departments of the routine task of supply distribution. Experimentation with multipurpose services, especially marketing, should be undertaken by co-operatives in the selected districts.
- (iv) The Village AID organization, in combination with the institutions of Basic Democracies, should be used as the co-ordinating agency for the programme. The services of village workers already in the field should be utilized to the maximum, and

TABLE I
Agricultural production targets and achievement during First Plan

Crops	Base period production (a)	Planned production by 1959-60	Planned increases over base period	Actual production			Average production (1955-56 to 1958-59)	Increase or decrease compared with base period
				1955-56	1956-57	1957-58			1958-59
		(Thousand tons)	(Per cent)	(Thousand tons)			(Per cent)	
Rice (cleaned)	8,329	9,000	8	7,212	9,016	8,487	7,890	8,152
Wheat	3,435	3,839	12	3,339	3,606	3,544	3,865	3,588
Maize	395	456	15	433	449	442	466	452
Other foodgrains	725	781	8	732	747	623	653	689
Total foodgrains	12,875	14,076	9	11,736	13,818	13,096	12,874	12,881
Sugarcane	10,600	14,110	33	12,039	12,640	14,880	15,420	13,760
Fruits and vegetables	4,200	4,977	19	n.a.	n.a.	n.a.	n.a.	n.a.
Oilseeds (including cottonseed)	890	1,017	15	974	973	948	n.a.	965
		(Thousand bales)	(Per cent)		(Thousand bales)			(Per cent)
Cotton	1,630	1,967	21	1,693	1,725	1,666	1,547	1,658
Jute	5,565	6,400	15	5,592	5,514	6,200	6,000	5,826
		(Million lbs.)	(Per cent)		(Million lbs.)			(Per cent)
Tea	52.8	60.7	15	52.5	54.6	44.5	53.5	51.3
Tobacco	260	300	16	197	192	214	224	207

Source: Based on data provided by Ministry of Food and Agriculture.

(a) The base periods are as follows:

Foodgrains, sugarcane, oilseed: Average production, 1948-49 to 1954-55.

Fruits and vegetables: Average of the data available between 1948-49 and 1953-54.

Cotton: Estimate for 1954-55.

Jute: Estimate for 1950-51 to 1954-55 excepting 1953-54.

Tea: Average production 1951-52 to 1954-55.

Tobacco: Estimate for 1954-55.

preference should be given to the concentration areas in the posting of newly trained village workers.

- (v) The key physical inputs of production—water, improved seed and implements, fertilizer, and plant protection—will have to be provided in suitable quantities and at the right time. Simpler and lower-cost cultural practices, however, deserve recognition in a programme of this type. Thorough land preparation, mulching, line sowing, weeding, composting and other labour-intensive practices of known value should be encouraged. In the process, an extraordinary burden will be placed on the technical and information services. Each village in the selected districts should have at least one demonstration plot with sufficient variety of practices to show what is practicable and what is not.

Crop production

15. Physical evaluation of results in crop production has been confined to those years for which final estimates of production have been officially issued, that is, 1955-56 to 1958-59. Table 1 shows estimated production in these years, compared with the First Plan targets for 1959-60. The production targets were reached or exceeded in the case of many crops in years when excellent weather conditions prevailed. Average production during the four years, compared with the planned increases over the base year, nearly reached the expected level in the case of maize and sugarcane, but fell well below it in the case of rice, wheat, cotton, jute, tea and tobacco.

Future requirements and production targets

16. A primary objective of the Plan is to make the country self-sufficient in foodgrains and to improve dietary standards. Over 80 per cent of the calorie intake of the people is met from foodgrains. Improvement in dietary standards will be sought through higher output and increased consumption of fish, fruits, vegetables, pulses, fats and oils, sugar, and livestock products. The production targets of major crops are summarised in Table 2, and are discussed below.

17. *Foodgrains.*—At the present level of consumption, foodgrain needs for the projected population of 96.9 million in 1964-65 will be about 14.2 million tons. Adding to it the requirements for seed and feed and allowing for waste, the aggregate needs in 1964-65 will be 15.9 million tons. An increase of 2.7 million tons above the bench mark production of 13.2 million tons will, therefore, be aimed at to attain foodgrain self-sufficiency by the end of the Plan period.

18. *Cotton.*—For cotton, a target of 2.3 million bales has been set for 1964-65 compared with the estimated production of about 1.7 million bales in 1959-60. To regain the maximum level of exports of raw cotton reached

TABLE 2
Agricultural production targets, 1964-65 (a)

Major crops	Estimated output in base period			Planned output in 1964-65			Increase		
	East Pakis- tan	West Pakis- tan	Total	East Pakis- tan	West Pakis- tan	Total	East Pakis- tan	West Pakis- tan	Total
	(Thousand tons)						(Per cent)		
Foodgrains :	7,376	5,813	13,189	8,752	7,169	15,921	19	23	21
Rice (cleaned)	7,335	1,006	8,341	8,605	1,559	10,164	17	55	22
Wheat	24	3,679	3,703	129	4,200	4,329	438	14	17
Maize	2	468	470	3	679	682	50	45	45
Others	15	660	675	15	731	746	—	11	11
Fibre crops :	(Thousand bales)						(Per cent)		
Jute	6,000	—	6,000	7,300	—	7,300	22	—	22
Cotton	16	1,650	1,666	17	2,275	2,292	6	38	38
Miscellaneous :	(Thousand tons)						(Per cent)		
Gram and other pulses ..	266	654	920	275	750	1,025	3	15	11
Fruits and vegetables ..	3,016	1,342	4,358	3,295	1,603	4,898	9	19	12
Oilseeds (including cotton seeds)	122	813	935	177	1,053	1,230	45	30	32
Sugarcane	3,840	11,590	15,430	5,460	15,340	20,800	42	32	35
	(Million pounds)						(Per cent)		
Tea	54.3	—	54.3	63.8	—	63.8	18	—	18
Tobacco	93.0	130.0	223.0	106.0	148.7	254.7	14	14	14
	(Thousand tons)						(Per cent)		
Fish	223	67	290	260	100	360	17	49	24
Timber	270	46	316	348	47	395	29	2	25

(a) Base periods for most of the products listed are averages of production in a recent 3 to 5 year period, selected to eliminate effects of exceptional weather conditions. Bases for various crops are :

Rice and other foodgrains, oilseeds, sugarcane, gram, pulses, tobacco, fruits and vegetables and cotton in East Pakistan : Average production 1954-55 to 1958-59.

Wheat in West Pakistan : Average production 1957-58 and 1958-59.

Jowar, bajra and barley in West Pakistan : Average production 1956-57 to 1958-59.

Oilseed in West Pakistan (excluding cottonseed): Average production 1956-57 to 1958-59.

Jute in East Pakistan and sugarcane and tobacco in West Pakistan : Production of 1958-59.

Tea : Average production for the years 1954-55, 1955-56, 1956-57, 1958-59 and 1959-60.

Fruits, vegetables, gram and pulses in West Pakistan : Expected production in 1959-60 as estimated by the Planning Commission.

Rice, maize and cotton in West Pakistan : Expected production in 1959-60 as estimated by the Planning Commission.

Timber : Expected production in 1959-60 as estimated by the Provincial Governments.

Fish : Expected production in 1959-60 as estimated by the Central Fisheries Department.

in the past, cotton production should be substantially higher. But cotton faces severe competition in the world market from surplus production and artificial fibres ; while at home it shares claims on acreage with foodgrain crops. A production target of 2.3 million bales of cotton in 1964-65 is, therefore, regarded as more realistic. It will be necessary to increase the production of fine qualities, and also to produce cotton with a staple length of 1-1/4 inches, which is in heavy demand in domestic and international markets. Comilla cotton grown in East Pakistan is the best harsh short-staple cotton grown anywhere in the world, and commands a premium in price over all comparable varieties. The demand for Comilla cotton can reach 50,000 bales, and even increase of supplies can be assured. At present production fluctuates widely between 10,000 and 55,000 bales, because it depends on *jhooming* (shifting cultivation) by nomads.

19. *Jute*.—Consumption of jute by mills and otherwise within the country is expected to increase from 1.5 million bales in 1959-60 to around 2.6 million bales in 1964-65. Annual exports are expected to be around 4.7 million bales. It is, therefore, planned to increase production of jute from 6 million bales in 1959-60 to 7.3 million bales in 1964-65, an increase of 22 per cent. Higher jute production will not jeopardize Plan targets for rice and other food crops.

20. *Tea*.—The target for tea is 64 million pounds, an additional production of 9.5 million pounds or 18 per cent above the base period output.

21. *Sugarcane*.—The target for sugarcane has been set with the dual aim of permitting a necessary increase in consumption of sugar and *gur*, and of meeting the rising demand for sugar in food processing and other industrial uses. Production of sugarcane is expected to increase from 15.4 million tons to 20.8 million tons, or 35 per cent.

Sources of increased production

22. The means required for achieving the production targets can be broadly divided into two categories : (i) irrigation and drainage schemes designed either to bring new areas under the plough, or to improve areas already under cultivation ; and (ii) measures to increase yields by use of fertilizers and organic manures, control of plant diseases and insects, use of improved seed and adoption of better cultural practices. Table 7* shows the planned contribution of different sources of increased production. Details are discussed below.

Development of new areas and colonization

23. The total land area of the country is some 234 million acres : 36 million acres in East Pakistan and 198 million acres in West Pakistan. The total cultivated area is about 62 million acres ; the remaining approximately 75 per cent of the area is either uncultivated, forested, unreported or unclassified. The net area planted to crops is 21 million acres in East Pakistan and

TABLE 3
Land use pattern

(Million acres)

					East Pakistan(a)	West Pakistan (b)	Total
Total area	..	..	..	..	35.4	198.4	233.8
Net area sown	..	..	..	..	21.0	31.0	52.0
Current fallow	..	..	..	..	1.2	9.2	10.4
Total cultivated area				..	22.2	40.2	62.4
Forest area	..	..	..	..	5.5(c)	3.2(d)	8.7
Not available for cultivation	..	..	..	..	5.0	51.0	56.0
Other uncultivated land (excluding current fallow)	..	..	..	..	2.0	21.6	23.6
Area not reported	..	..	..	..	0.7	82.4	83.1

Source : Ministry of Food and Agriculture.

(a) Data for East Pakistan are for the year 1954.

(b) Data for West Pakistan are for the year 1957, except for Hyderabad and Jacobabad districts, and Quetta and Kalat Regions for which data for 1956 have been used.

(c) Includes an area of 2.3 million acres classified as 'scrub forests.'

(d) Only wooded area.

31 million acres in West Pakistan, 10 million acres being current fallow. Some of the culturable waste of about 24 million acres can be brought under cultivation if irrigation, drainage and reclamation facilities can be made available. About 10 million acres of the cultivated area are sown more than once a year. Double cropping can be increased markedly, especially in East Pakistan, by provision of irrigation facilities. Production on the existing area can be increased through flood control, drainage and better use of water resources.

24. It is expected that about 7 million acres already under cultivation will benefit from irrigation, drainage and reclamation projects undertaken or completed during the Plan period as indicated in Table 4. These projects should add about 400 thousand tons of foodgrains a year to domestic supplies by 1965. About 2.4 million acres of virgin land will receive new irrigation facilities during the Plan period. It is estimated that of these about 1.7 million acres will actually yield harvests as a result of land development and colonization operations. This should increase foodgrain production by about 460,000 tons by the end of the Plan period.

25. Effective coordination between the Central and Provincial agencies concerned with agriculture, irrigation and land use will be essential if colonization of new areas is to proceed speedily. Where new state land is to be developed, plans for colonization will need to be prepared well ahead of the actual operations. A provision of Rs. 150 million is included in the Plan for colonization in both East and West Pakistan.

TABLE 4
*Cultivated area likely to be improved by irrigation
 and drainage facilities and new area to be irrigated, 1960-61 to 1964-65*
 (Thousand acres)

Project	New area	Improved area
<i>West Pakistan :</i>		
Kotri Barrage	800	..
Thal project	500	..
Guddu project	180	945
Salinity control project	150	843
Drainage schemes .. .. .	..	3,600
Taunsa project	67	400
Other schemes	518	197
Sub-total ..	2,215	5,985
<i>East Pakistan :</i>		
Tidal embankment	100	200
Khulna multipurpose scheme	25	100
Teesta barrage	25	50
Ganges-Kobadak .. .. .	..	100
Comprehensive drainage scheme, Faridpur .. .. .	..	200
Dredging of river Gumti .. .. .	..	100
Other schemes	80	377
Sub-total ..	230	1,127
Total ..	2,445	7,112

Fertilizers and organic manures

26. The First plan programme for the application of fertilizers slowly gathered momentum towards the end of the Plan period. Although the target of 360 thousand tons of ammonium sulphate annually was not achieved, about 160 thousand tons of ammonium sulphate equivalent were distributed in the last year of the Plan, compared with about 43 thousand tons in the first. In the Second Plan the aim is to increase use of chemical fertilizers much more rapidly, and to provide a more balanced application of fertilizers other than ammonium sulphate. The targets of consumption of different fertilizers are given in Table 5. Translated into plant-food terms, the figures in Table 5 imply an increase of consumption of nitrogen from 32 thousand tons in 1959-60 to 120 thousand tons in 1964-65; of phosphoric acid from one thousand to 76 thousand tons and of potash from nil to 8 thousand tons.

TABLE 5

Targets of consumption of fertilizers, 1964-65

(Thousand tons)

Province	Urea	Ammonium nitrate	Ammonium sulphate	Super-phosphate	Muriate of potash	Total
East Pakistan	117	..	10	120	10	257
West Pakistan	59	103	50	70	5	287
Total	176	103	60	190	15	544

27. The soils of the country, especially of West Pakistan, lack organic matter. In order to enable the land to bear the burden of increased production, it will be necessary to apply such organic manures as oil-cake, bonemeal, and compost in larger quantities. Oil-cake and bones, at present exported, should be used within the country. The increased use of water-hyacinth for compost making will promote production in East Pakistan, and also help in reducing the damage done by this weed. It is planned to increase green-manuring, particularly in East Pakistan, by distributing the seeds of suitable plants.

28. To ensure the success of the programme, the following conditions need to be fulfilled :

- (i) The sale of fertilizers should be substantially subsidized in the initial years to encourage its increased use ; the subsidy should taper off as consumption increases and the economic benefits of fertilizers are appreciated.
- (ii) Fertilizers and manures should be made available within easy reach of the farmers, and the necessary credit facilities provided.
- (iii) Commercial organizations should be encouraged to take up the distribution of fertilizers and manures.
- (iv) Simple and quick tests should be carried out in all areas, particularly in West Pakistan, to determine the general suitability of various fertilizers to local soils.

29. A provision of Rs. 318 million has been made in the Plan for the distribution of fertilizers and manures, and to meet the cost of subsidy.

Plant protection

30. Considerable expansion has taken place in plant protection operations during the First Plan period, and valuable experience gained in methods and organization. It is estimated that during 1959-60 about 1.3 million acres under major crops will benefit through ground and aerial operations, compared with 200,000 acres in 1954-55 ; at the same time enough seeds of major crops will be treated with preventive chemicals to sow about 3.0 million acres, compared with 300,000 acres in 1954-55. The Plan target is to cover about 6 million acres by ground and aerial operations—about 15 per cent of the area under major crops ; in addition enough seeds will be chemically treated against seed-borne and soil-borne diseases to sow about 14 million acres.

31. Timely availability of necessary chemicals and equipment for plant protection is essential. At present, almost all the chemicals used are imported. Two formulation plants are about to go into production, one in each Province ; it will be necessary to provide facilities to private enterprise to establish additional formulation plants and for the manufacture of pesticides and insecticides. In addition, licences for the import of pesticides should be given to experienced companies to encourage private distribution and utilization. Also, it will be necessary to prescribe quality, promote standardization, and determine safe residual limits for the application of different pesticides to various crops. Legislation may be needed to ensure that the whole of an infected area is covered ; untreated pockets can be a source of reinfection and so nullify the benefits of plant protection operations. Most of the equipment required for the control of plant diseases and pests is at present imported. Equipment such as hand sprayers is being manufactured within the country. Facilities will be required for the import of raw materials needed to make local manufacture more widespread.

32. While the control of pests and diseases is being intensified it is important that new pests and diseases should be excluded from the country by effective quarantine measures. This is all the more necessary because of increased communications by air and land routes.

33. Plant protection services have hitherto been made available free of charge to farmers except for nominal charges realised from tea and sugar-cane growers. Under the expanded programme now proposed, a part if not the whole of the cost of plant protection operations should be recovered from the farmers. To keep down the cost of the programme, it is essential that farmers be induced to contribute the necessary manual labour ; the use of hired labour should be minimized. The aim must be that the farmers should undertake plant protection measures themselves. Towards this end, chemicals and equipment may be sold in the initial years at subsidized rates to farmers who carry out plant protection operations.

34. Research is needed on various aspects of plant protection, including the design of sprayers and dusters, potency doses, and method and time of application of chemicals with special attention to possibilities of manufacture from raw material locally available. A new insecticide, *makrolene*, developed by the Council of Scientific and Industrial Research from waste products of Daudkhel fertilizer factory, is at present being tested for large-scale manufacture. Research on such problems as biology and habits of pests and diseases, and resistance to chemicals, will also need to be intensified.

35. A provision of Rs. 256 million, after taking into account recoveries amounting to about Rs. 4 million, has been made for the plant protection programme, covering the cost of chemicals, equipment, and aircraft required in the Plan period.

Seed multiplication and distribution

36. Considerable areas under crops, except rice in East Pakistan, are being sown with improved varieties but the seed tends to deteriorate over time even in the case of self-pollinated crops, so that systematic replacement of seed is necessary. Concurrently, new varieties are being continuously evolved to replace the older ones. The use of improved seeds, however, is below requirements. It was expected that 6 per cent of the area under major crops in East Pakistan and 17 per cent in West Pakistan would be replaced with improved seed by the end of the First Plan period; the estimates of performance are one per cent in East Pakistan and 7 per cent in West Pakistan. The shortfall was due, among other causes, to the inability of Provincial Governments to procure land for setting up a sufficient number of new seed multiplication farms. The coverage proposed in the Plan is shown in Table 6.

TABLE 6

Proportion of area under major crops to be covered by improved seed by 1964-65

(Per cent)

	Rice	Wheat	Maize	Gram	Sugar-cane	Cotton	Rape and mustard	Jute	Tobacco
East Pakistan	36	78	50	25	50	—	56	50	23
West Pakistan	50	50	50	50	50	100	—	—	50

37. The programme requires three steps, all of which are time-consuming: first, multiplication of the foundation seed on government farms; second, multiplication of seed on the farms of registered growers; and finally, distribution of seed to farmers generally.

38. *Government seed farms.*—During the Plan period, government seed farms will be extended from 30 thousand acres to 60 thousand acres in West Pakistan and from 8 thousand to 17 thousand acres in East Pakistan. As noted above, delays have in the past occurred in the acquisition of land for seed farms ; and purchasing of private land has proved to be very expensive. The programme can be promptly executed only if government-owned land is made available quickly to the Agriculture Departments, and acquisition of private land speeded up.

39. *Registered growers.*—Experience has shown that seed production by farmers is generally more economical than at government farms. It is, therefore, proposed that foundation seed be further multiplied through selected growers who will be registered by the Government under specified conditions. The Government will offer a premium price for the seed so produced ; in return, the registered growers will sell to the Government all the seed they produce. By the end of the Plan period it should be possible to grow foundation seed for further multiplication on some 700 thousand acres in West Pakistan and 200 thousand acres in East Pakistan. As a rule the Agriculture Department should not engage in seed distribution, which should be undertaken either by the Cooperative Departments or by private enterprise.

40. Special attention will be paid to multiplication and distribution of seed of improved varieties of fruits and vegetables, particularly potatoes, in both the Provinces ; of paddy, jute, oilseeds, sugarcane and wheat in East Pakistan ; and of hybrid maize, wheat, paddy, sugarcane and cotton in West Pakistan. Cold storage facilities will need rapid expansion through private enterprise in order to meet the increased demand for seed and to overcome seasonal gluts at harvest time.

41. *Seed testing and certification.*—To ensure that only good quality seed is produced and disseminated, a system of seed certification will be necessary. For this purpose, four seed testing laboratories will be set up during the Plan period, in addition to the two (one in each Province) now being established. The aim will be to ensure that only certified seed is in use by the end of the Plan period, especially in the case of cotton, jute and maize. All improved seed distributed for sowing should be treated with fungicides and pesticides, and should be coloured to avoid use for human consumption. Before a new variety of seed is brought into use in any particular area, its performance at the regional farms, private as well as governmental, will need to be compared very carefully with that of the varieties commonly used locally, so that only properly tested and approved strains are multiplied and distributed for general cultivation.

42. A provision of Rs. 114 million has been made in the Plan for the seed programme, after deducting recoveries from sale of improved seed to farmers.

Other improved practices

43. Part of the increase in production is expected from the adoption of other scientific methods of cultivation. These methods include sowing in line, good preparation of the seed bed, weeding, use of improved implements and judicious application of water. Because it takes time to induce the farmer to abandon traditional methods and adopt new ones, only a modest increase in production is expected from these methods. There is urgent need for popularization of improved practices, including crop rotation, through on-the-spot demonstrations by extension services, Village AID workers and other agencies. A special problem in the system of monoculture prevalent in East Pakistan, where fodder is not grown and livestock is underfed inefficient. It is essential that cereal and leguminous fodders, such as maize and lucerne, should be introduced into the agricultural economy of East Pakistan as soon as possible.

TABLE 7

Estimated contribution from various sources to increase in agricultural production by 1964-65

	Sources						
	Production increase	New area	Improved water and drainage	Fertilizer	Plant protection	Improved seeds	Other cultural practices
	(Thousand tons)					(Per cent)	
<i>Foodgrains (a)</i>	2,732	17	15	25	20	14	9
East Pakistan	1,376	8	14	33	23	17	5
West Pakistan	1,356	26	15	17	18	10	14
<i>Fruits and vegetables</i>	540	13	12	32	13	10	20
East Pakistan	279	3	3	43	11	18	22
West Pakistan	261	24	22	19	15	1	19
<i>Sugarcane</i>	5,370	12	4	46	12	13	13
East Pakistan	1,620	2	3	48	22	10	15
West Pakistan	3,750	16	5	46	8	13	12
<i>Oilseeds (including cotton seeds)</i>	295	11	6	16	31	31	5
East Pakistan	55	2	2	—	2	91	3
West Pakistan	240	14	7	19	37	17	6
	(Thousand bales)					(Per cent)	
<i>Cotton</i>	626	9	6	22	39	18	6
East Pakistan	1	—	—	—	100	—	—
West Pakistan	625	9	6	22	39	18	6
<i>Jute</i>	1,300	31	6	16	18	20	9
East Pakistan	1,300	31	6	16	18	20	9
West Pakistan	—	—	—	—	—	—	—
	(Million lbs.)					(Per cent)	
<i>Tea</i>	9.5	—	—	26	48	—	26
East Pakistan	9.5	—	—	26	48	—	26
West Pakistan	—	—	—	—	—	—	—

(a) Includes rice, wheat, Include maize, jowar, bajra, and barley.

Economic incentives

44. In agriculture, as in other sectors of the economy, the Government policy favours a diminution of direct controls of a kind that tend to restrict production. Instead, the trend is towards general measures aimed at creating a climate in which farmers should be able to take decisions free from controls but with some assurance of minimum price. With respect to non-food crops, policy is comparatively easy to determine. Licensing of jute acreage, for example, was considered to be a practice of doubtful utility and was abolished in 1960. Food crops present more difficult problems. As in non-food crops, the price received by the farmer must be sufficiently high and predictable to generate his interest in both intensive and extensive measures for increasing output. In addition, however, food is the largest item of consumer expenditure, and un-controlled food prices may well present an inflationary threat. Seasonal shortages, hoarding, and price manipulation are real dangers in a purely free-market approach.

45. In December 1959 a new wheat policy for West Pakistan was announced to take effect after harvest of the *rabi* crop in 1960. It was designed to implement the policy of government retraction from commercial operations. Compulsory procurement was abolished, and private trade was authorized to move wheat without restriction. As an incentive to producers, a more attractive floor price was guaranteed for several seasons, and consumers were afforded protection from inflationary price rises by the establishment of substantial reserve stocks. Despite all precautions, some risk of shortages, real or speculative, remains. This risk was accepted in the interest of economy, greater efficiency in the physical handling of wheat, and incentive to production. The new policy represents recognition of the advantages of a free market mechanism and, at the same time, the need for readiness to protect basic food supplies from abusive speculative practices. Compulsory procurement has often been marked by excessive transport and handling costs, which are certain to be reduced in the operations of private trade. To the extent that these savings are shared, prices to wheat producers may rise without significant penalty to consumers. Although the advantages of a free market are apparent, certain disadvantages are inherent in the new policy. In a year of heavy production, a higher guaranteed price may result in a drain on the national exchequer. If, due to adverse weather or other causes, production falls, the reserve stock programme may be put to severe test. The guiding rule is one of flexibility. Producers as well as traders are entitled to reasonable profit opportunities; but if unreasonable profits are made, the first response should be the discharge of reserve supplies in critical areas. In extreme cases, punitive measures may be necessary to protect the public interest.

46. East Pakistan is pursuing a similar free-market policy for rice. In January 1960 rationing was abolished in 16 of 19 urban centres and except for monopoly procurement along the borders as an anti-smuggling measure, all procurement was made voluntary. The risk factor in the case

of rice in East Pakistan is somewhat greater than in the case of wheat in West Pakistan. East Pakistan has no guaranteed supplies from external sources to protect it against any shortages resulting from natural calamities or other causes, such as floods, droughts and insect attacks. In normal years, however, domestic production is satisfactory, and even capable of rapid improvement. The menace of flood and drought will decline as irrigation and reclamation works included in the Plan are completed ; and the incidence of plant diseases and pests should decline as plant protection measures improve. Also, the planned increases in new storage should provide enough capacity for a substantial reserve stock to be built up during the Plan period. But to be certain of realizing the benefits of a free market, there will be need for great vigilance during the first years that the new policy is in force.

Subsidies

47. The value of fertilizer, improved seed and plant protection is fast becoming established in Pakistan. Therefore, a progressive withdrawal of the subsidies available in respect of these materials and services should be undertaken with a view to their complete elimination. Subsidies in respect of expensive machinery, equipment, and land reclamation may continue, since the payments involved are beyond the means of most farmers. All subsidies should be regarded as a strictly temporary form of assistance to be abolished as quickly as circumstances permit. Eventually, the role of the Government in these fields should be confined to research, demonstration, and the organization work connected with major epidemics of plant diseases and pests.

Mechanization

48. The programme for mechanization covers the use of tractors and bulldozers and their accompanying equipment, the manufacture and distribution of more efficient agricultural implements, and the development of power pump irrigation. Because labour is plentiful, the use of mechanized equipment for general cultivation purposes is not advocated. As recommended in the First Plan, tractors, bulldozers, and power equipment should be used chiefly for the rapid development of areas opened up by irrigation projects, for land reclamation, and for anti-erosion and flood control purposes. Of particular importance are land reclamation and power pump installations in East Pakistan, especially in Mymensingh and Sylhet districts, for increased *rabi* cultivation, and for development of cultivable areas in West Pakistan, including *sailaba* cultivation in Quetta and Kalat divisions. Possibilities of using small tractors with the aim of saving on bullock power, will be thoroughly investigated. Some of the machinery requirements of the Plan are included under other programmes ; for example, requirements of anti-erosion work are included under the soil conservation programme, and those of new irrigated areas such as the Thal project or the Kotri Barrage are included in the colonization programme.

49. For the efficient use of machinery, well equipped workshops and adequate repair facilities are essential. In West Pakistan, six workshops were set up during the First Plan period ; the Thal Development Authority has its own workshop and repair facilities. In East Pakistan, a central workshop at Dacca and two sub-workshops were established. During the Second Plan period, one main and five subsidiary workshops will be established in West Pakistan and three additional sub-workshops in East Pakistan at strategic places. Operations of workshops in the past have suffered considerably for lack of trained personnel. Besides repairing of agricultural machinery, the government workshops will be expected to devise, test, and manufacture improved agricultural implements, and to train mechanics, operators, drivers, and other technicians.

50. Mechanization of agriculture should be based on sound economic and engineering research. Accordingly, research should be undertaken on the economics of cultivation and reclamation of land by various types of tractors, tubewell and small power pump irrigation, the use of windmills, the development of more efficient crushers and fodder-cutters, and improvement of agricultural implements generally. Private enterprise should be encouraged to import necessary material and machinery to manufacture farm implements. Improved implements devised by governmental agencies should be made available to private manufacturers as models for mass production. Provision has been made in the Plan for imports as well as production in government workshops of improved implements, until such time as private manufacturers can meet the requirements.

51. A sum of Rs. 63 million, after allowing for recoveries, is allocated in the Plan for the development of mechanization in agriculture.

Soils

52. Sporadic and uncoordinated soil surveys have been carried out in the past by more than one governmental agency. The First Plan recommended the formulation of a uniform system of soil classification, a soil survey of the entire country, and the preparation of soil maps. In 1955, the Food and Agriculture Council of Pakistan set up a committee of experts to prepare a scheme for soil surveys, with details of sampling and mapping units and techniques suited to local conditions. The scheme is now under consideration by the Government. Because it will have far reaching effects on the development of agriculture, the scheme will need to be carefully examined and expeditiously executed, the smaller schemes already under execution being merged in it. The agency entrusted with the responsibility for carrying out a comprehensive soil survey should keep in view the requirements of all users of survey results.

53. During the First Plan period a rapid soil fertility survey was started in East Pakistan, and later extended to West Pakistan, to ascertain the

response of various crops to different fertilizers and manures in different regions of the country. Some valuable information was obtained. The scheme will be further extended during the Second Plan period. Research will be undertaken to determine the deficiency, if any, of trace elements in the soils of various regions. A scheme is already under execution in East Pakistan and will be expanded during the Second Plan period and extended to West Pakistan.

54. The First Plan proposed that experiments be undertaken on the use of gypsum for improving land, including alkaline and saline-alkali soils. Practically nothing has been done. These experiments should be started without delay to ascertain the possibility of finding an economical method of improving soils by the use of gypsum.

Agricultural statistics

55. There has been some improvement in the collection and quality of agricultural statistics. Data collected in the quinquennial census of livestock in West Pakistan conducted in 1955 have been compiled, and the first agricultural census since Independence is being held in 1960. Comprehensive reports on "Land and Crop Statistics of Pakistan", and "Crops, Vegetables and Fruits in Pakistan" have been issued by the Ministry of Agriculture. The provincial departments of agriculture are now better staffed with agricultural statisticians. Crop-cutting experiments have been conducted to estimate the production of important crops, especially wheat and rice. The universities and private agencies in East and West Pakistan have collected and published a number of reports containing useful agricultural statistics. Urgent tasks that still require to be done include revision and standardization of nomenclature, improvement of collection procedures and of scope and coverage, and training of personnel.

56. The nomenclature used in the compilation of agricultural statistics is not always clear and in certain cases where definitions exist, they are not uniformly interpreted. For instance, ambiguity exists in the terms used to classify the data relating to land uses as "cultivated land", "net area sown", "current fallow", "area under forests", and so on. A clarification of the terminology used is called for.

57. Statistics on acreage of crops need improvement in coverage and accuracy, especially in East Pakistan, where field surveys are not made and the estimates are based on reports from agricultural assistants who usually have little training in crop reporting. With the implementation of land reforms in East Pakistan a revenue organization is being developed in that Province and will be entrusted with the task of collection, compilation and maintenance of accurate area statistics with trained staff under supervision of the Agriculture Department. In West Pakistan the statistics of crop acreage are generally believed to be fairly accurate but will need some improvement, for example, under the revenue assessment system in force in Hyderabad

and Khairpur Divisions, the unit of assessment is a survey number and the rate of assessment is one applicable to the highest assessed crop grown in whole, or part of the survey number. As a result, the revenue staff, at the time of crop inspection, seldom record the actual area under crops, although the instructions call for this information. The names, but not the actual acreage, of crops grown in a given survey number are recorded, which serves the purposes of revenue assessment but not of agricultural statistics.

58. Statistics relating to estimates of crop production are also of doubtful value. They are made by multiplying yield by area harvested or sown. Working out of acre yield is generally a matter of subjective judgment of the enumerator and others, assisted by some experimental data. In order to estimate the acre yields of major crops, crop cutting experiments on a random sample basis have been tried. It is necessary to experiment further during the Second Plan period to determine the merits of the system as a check against the present estimates. Provision has been made in the Plan for expanding the scope and coverage of these experiments.

59. A serious deficiency in agricultural statistics is that about 83 million acres, or 35 per cent of the total land area, mostly in West Pakistan, remains unreported. The First Plan recommended that these areas should be surveyed and included in the crop reporting system. Under the land reforms scheme being implemented at present, these areas are now to be surveyed and necessary data collected. Until this survey is completed, periodic sample surveys should be of advantage.

60. Data on area and production of minor crops such as fodders, pulses, vegetables, and fruits should also be collected and published. An annual index of agricultural production for each Province and for the country as a whole should be prepared. The collection, compilation and dissemination of agricultural price data should be so designed as to provide the information required by growers, traders and consumers. In particular, there are no statistics of prices received and paid by farmers. Arrangements should be made to collect and publish such prices if possible on a monthly basis.

61. The agricultural census, now in progress, is expected to be completed by the end of 1960. The assembled data should be processed speedily, and made available for scientific agricultural programming.

Farm management and economic studies

62. Agriculture in the country is generally being practised for subsistence and not as a business. Until farming becomes more profitable; the farmer will not have the capital to invest in its further development. Studies in farm management and production economics should, therefore, be developed through agricultural colleges and other agencies. With the

expansion of extension activities by the Departments of Agriculture and the Village AID organization, the need for farm management surveys will become still more urgent. Also, sound agricultural policy and planning depend on studies of the economics of agricultural production and resources. Such studies should include the determination of cropping patterns and intensities, assessment of the impact of land reforms on agricultural production and examination of the pattern of food consumption at various income and price levels. Provision is made in the Plan for farm management and economic surveys.

Agricultural marketing

63. Surveys of the marketing conditions of agricultural crops started in the 1930's. A number of such surveys of various crops have been carried out in recent years. It is necessary to undertake similar surveys in respect of certain major crops, namely jute, cotton, wheat, tea and sugarcane. Laws have existed in some parts of the country since 1939 to regulate markets and to eliminate malpractices, but these are applicable only to the former Punjab province and Bahawalpur state. Legislation to cover the entire country is currently under consideration in both the Provinces. It will provide for establishing regular markets where these do not exist, equipping them for the better handling of produce, and providing for storage, processing, grading and packing. The Weights and Measures Acts, which exist in the former Punjab, Sind and North West Frontier Provinces, should be extended to other areas of West Pakistan. Similar legislation is in preparation for East Pakistan, and needs to be applied early.

64. Apart from wool, rape seed, butter and mustard oil, little has been done about grading of other commodities. Some work on grade, specifications of cotton was carried out by the Pakistan Central Cotton Committee, which will be expanded under the Second Plan. It is proposed that during the Plan period, stations should be established for grading, cotton, jute, hides and skins, eggs, coriander seed, and sann hemp. The initial cost of the stations will be met by the Government, and the recurring cost from testing fees. There is a need for unifying the provisions of the Provincial Pure Food Act and the specifications prescribed by the Cooperation and Marketing Adviser.

65. A provision of Rs. 4 million is made in the Plan to meet the cost of improvements in agricultural marketing.

Foodgrain storage

66. It was estimated in the First Plan that foodgrain storage capacity of about 1.5 to 2.0 million tons was required. Storage constructed by the Central and Provincial Governments in recent years has increased the capacity to approximately 1.06 million tons in 1960 against 590,000 tons, in 1955. It is still necessary to build additional storage for 940,000 tons,

bringing the total capacity to 2 million tons, out of which 780,000 tons will be constructed during the Second Plan period. The position of government owned storage since 1955 is given in Table 8.

TABLE 8

Government owned foodgrain storage capacity, 1955 to 1965

(Thousand tons)

	East Pakis- tan	West Pakis- tan	Central Government			TOTAL	
			In East Pakis- tan	In West Pakis- tan	In Kara- chi		Total
Serviceable storage capacity in March 1955	150	365	..	..	75	75	590
Storage capacity added in First Plan period	250	135	..	3	85	88	473
Storage capacity to be con- structed in Second Plan period	250	200	115	103	110	328	778
Total storage capacity projected for 1965	650	700	115	106	270	491	1,841

Agricultural research

67. Both long-term and short-term research is basic to future development. Emphasis in the Plan is somewhat heavier on short-term research because of the urgency of increasing agricultural, particularly foodgrain, production. Research in such fields as the evolution of better varieties of crops, manurial trials, and the processing and use of agricultural produce has yielded valuable results in the past. Some important matters for research are noted in preceding paragraphs; other urgent problems which need concentrated effort are discussed below.

68. *Rice*.—Valuable research has been done in West Pakistan on the evolution of new varieties; progress in East Pakistan, however, has been slow. Research on rice in East Pakistan should in future concentrate upon selection of the best varieties from the existing improved strains, and upon conducting zonal trials with these varieties. Research is also needed in both the Provinces on crossing of *indica* and *japonica* species and on evolving

such varieties as can stand heavy doses of fertilizer without lodging and which can thrive in waterlogged and saline soils. Studies in photo-periodism and resistance to diseases especially *ufra* should also be undertaken.

69. *Wheat*. Evolution of improved varieties of wheat has a long history, and many new varieties have progressively replaced the older ones. Recent discoveries are of C-271, C-273 and *dirk*. There is need to combine high yields with resistance to diseases, particularly rust; to develop varieties with stiff stems to avoid lodging and varieties with short periods of growth. Particular varieties may be needed for *barani* areas and saline regions.

70. *Maize*.—Research on hybrid maize, which was started in West Pakistan about 1952 and intensified in the First Plan period, has met with conspicuous success at Peshawar and Lyallpur. To reduce the time taken to produce hybrids, research stations are being established in sub-montane regions. This work will be expanded during the Second Plan period.

71. *Other foodgrains*.—Little research has been done on *bajra*, *jowar*, barley and oats. These crops will need attention; new sub-stations in areas where these crops are largely grown will be opened. Since *bajra* is a cross-fertilized crop, its breeding presents peculiar problems; suitable strains need to be developed for different areas by process of mass selection. Varieties of barley with good melting qualities need to be evolved.

72. *Sugarcane*.—Varieties Co. 312 and Co. 313 have been grown for years but their quality and yield are deteriorating; moreover, they are susceptible to pests like pyrilla. New varieties will need to be evolved, resistant to pests, diseases and frost. Because the crop bears viable seeds under natural conditions in East Pakistan, but not in West Pakistan, cross breeding work should be intensified in East Pakistan by expanding the existing facilities at Ishurdi. Seeds produced at Ishurdi should be tried at various places in both Provinces.

73. *Sugar beets*.—Work done in the past few years has shown that sugar beets can be grown successfully in the Peshawar Division. An experiment is being carried out to test the crop for sugar manufacture; if this experiment succeeds, it will reduce the cost of production of sugar and increase supplies. The main problem will then be to produce more beet seeds. Efforts to do this are already being made in some of the suitable areas by the Agriculture Department, and will be expanded to other areas.

74. *Jute*.—A great deal of research on jute has been done in the past. Four improved varieties, C-320, C-321, O-632 and O-753, have been evolved in recent years, and will be tried in various regions. Breeding work will be continued for varieties which have high quality fibres, resistance to stem rot and black band diseases, floods, and drought, and which are fast growing and early maturing, and less sensitive to photo-periodism.

75. *Cotton*.—Import work has been done on cotton, and most of the area under cotton is sown with improved varieties suited to local conditions. Emphasis will be on varieties with longer (*i.e.*, 1-1/4 inches) and more staple length, better spinning value, higher ginning percentage and greater yield of oil from cotton seed. Cotton root-rot is a serious malady and has so far defied treatment. Work on this disease should be intensified.

76. *Potatoes*.—To find better varieties of potatoes, its seed was imported from Europe and trials made during the First Plan period. The *ultimus* variety proved successful, and is being multiplied and distributed. Attention should be directed to cross-breeding *Solanum tuberosum* with other species such as *S. demmisum*, *S. acaule* and *S. andigenum*. To increase and cheapen seed supplies, investigations into the possibility of growing an early summer crop in low hill areas on a commercial scale are essential; selected chemicals should be tried to break the dormancy of freshly harvested tubers. For sweet potatoes, research both on varieties and marketing is needed.

77. *Vegetable crops*.—Augmented production depends largely on supply of high quality seed. Continuous efforts are necessary for evolving varieties which combine high yields with early maturity and resistance to pests and diseases. Specific problems needing greater attention include evolution of onion varieties with better storage quality, investigations on buttoning and bolting of cauliflower, forcing of vegetable crops, and studies on the production of seed in different localities. Production of *turmeric* and *fennel* is promising and should be encouraged.

78. *Fruit crops*.—An outstanding achievement in recent years is the introduction of two varieties of tangerine, known as *kinno* and *fritter*, which are superior to the varieties now grown. Research will be undertaken on improvement of quality and yield of fruits, which vary widely in different localities. There is also scope for introduction of temperate fruit strains from Europe and America into the hills and sub-montane regions of West Pakistan. Other important problems for research are biennial bearing and malformation of mango inflorescence, *tristeza* and granulation in citrus, stock-scion effects and use of synthetic growth-regulating substances in propagation. In addition to its consumption as *dab* (juice taken from raw coconut), coconuts are a source of copra and oil of high commercial value. Coconuts are mainly grown in East Pakistan on some 64,000 acres. There is great scope for increasing the cultivation of this crop in other suitable regions of the Province. The crop can also be introduced in the coastal areas of West Pakistan. Effort should be made to evolve varieties of coconut of high yields and superior quality fruit; experiments are needed also to develop better agronomic practices for promoting uniform quality.

79. *Water requirements of crops*.—Concentrated research is necessary covering not only how much water is needed by each crop for healthy growth in various regions, but also the correct time and method of application so

as to avoid waterlogging and salinity. Work on the lines formerly done at Resalewala (Lyallpur) has been stopped. It needs to be reviewed and developed in both Provinces.

80. *Introduction of new crops.*—The Food and Agriculture Council, Pakistan has started a plant introduction service on a modest scale. Plants and seeds of new crops and varieties are imported from abroad and supplied to the Provinces for trial. For example, olive plants from Italy were imported and are being tried in Swat State. Promising trees, plants, grasses and seeds should be imported for trial under local conditions. In particular trial should be carried out to investigate the possibilities of growing cashew nuts, ramie, flax, spices, chillies, soya-beans, sisal and coffee.

81. *Technological research.*—Research on such matters as nutritive value, milling, baking, cooking and keeping qualities of wheat and rice is important. Research is also necessary to discover the most suitable methods for canning and processing of fruit products. Expansion of research on all aspects of processing and industrial utilization of cotton and jute is necessary. In particular, the need is to discover new uses for jute. There is need also for general research on agricultural bacteriology, virology, plant physiology, and the use of radio-isotopes in agriculture research.

82. A provision of Rs. 33 million is made in the Plan for the development of agricultural research inclusive of research by the Pakistan Central Cotton and Jute Committees and the Food and Agriculture Council.

Animal Husbandry

83. The aims of self-sufficiency in basic food requirements and amelioration of dietary standards through protective foods such as meat, milk, and eggs, presuppose a marked improvement in animal husbandry. The motive power for agricultural operations is—and will for some time continue to be—supplied largely by livestock; and animal manure is needed for maintaining and improving soil fertility. Also, animal by-products such as wool, hides, and skins have commercial and industrial uses of considerable importance to the national economy. The First Plan put forward a programme for the improvement of livestock covering disease control, cattle breeding and multiplication, livestock conservation, dairy and poultry development, and research and training. There were shortfalls in the implementation of most parts of the programme. The problems of livestock improvement existing at the beginning of the First Plan period are still unsolved at the beginning of the Second, though comparatively greater availability of trained personnel for dealing with these problems now offers better prospects of implementation.

Breeding

84. *Cattle.*—The livestock population is inadequate both in quality and quantity due to inadequate feed and fodder, poor disease control, indiscriminate slaughter of quality stock, and degenerative breeding. The

quality is much poorer in East Pakistan as compared to West Pakistan, and the number larger in relation to feed and fodder supplies of that Province.

85. There is a serious shortage of good animals for draught, milk, meat, wool, hides and skins, and even poultry and poultry products are scarce. For example the West Pakistan Government has estimated that against the current requirements of the Province, there is a deficiency of about one and a half million work animals, and that this figure is likely to rise to some three million when the newly irrigated areas come under cultivation. The efficiency of the animals and the quality of livestock products are usually low. Similarly, meat, milk, butter, and *ghee* production is much below the quantities needed. The gap between their supply and demand seems to be widening ; the prices of these products are rising faster than the general price level.

86. The breeding programme in the First Plan was designed to conserve good quality stock, improve breeds through selective breeding, multiply good breeds, and distribute them to the farmers. Five breeding farms were established during the Plan period for developing indigenous breeds best adapted to particular areas, cross-bred with foreign strains where desirable. These farms have multiplied livestock and poultry, and distributed large numbers of better quality bulls, cockerels, and eggs. Artificial insemination was practised at eight centres to increase the serviceability of high quality bulls and make good the existing shortage. The breeding programme, however, fell short of the First Plan targets ; much remains to be done in the Second Plan period.

87. Scrub stock in the villages will be castrated so as to check degenerative breeding ; only selected and superior males should be used in the villages to upgrade indigenous breeds. In East Pakistan the number of cattle is much larger than the supplies of feed and fodder can support efficiently. Because the scope for increasing fodder supply in the Province during the Plan period is limited, it is necessary to reduce the cattle population ; this can be achieved through limiting the number of livestock a farmer may maintain, in relation to the size of the holding.

88. The Plan proposes that some 20 new government breeding farms should be established, and an equal number of existing farms improved to provide more high quality bulls. Qualified geneticists should be available to all breeding farms. Private breeders will be encouraged, through appropriate incentives such as land grants, to produce bulls of a specified breed for sale at fixed prices. A number of artificial insemination centres will be set up, particularly in the larger cities where direct breeding arrangements are not easily available. Zones will be specified for the various breeds, and efforts will be made gradually to eliminate other breeds than those preferred for each zone. This will help to develop and thereafter to maintain purity of the breeds, and improve the stock.

89. *Poultry*.—The First Plan proposed fifteen new farms for the multiplication and distribution of poultry ; seven were actually opened. Improvement of the existing farms and starting of three large new farms are now suggested, with a total capacity approximately equal to ten of those previously proposed. These farms will multiply breeds of poultry like White Leghorns and Rhode Island Reds which have proved to be heavy layers. Preference will be given to the distribution of eggs for hatching, rather than of chickens and cockerels. Because ducks provide one-third of the egg production of East Pakistan, five existing duck multiplication farms will be expanded.

90. *Sheep*.—Sheep provide meat and wool, which are important both for domestic consumption and for exports. The country is short of mutton and fine wool ; in 1958, wool was imported at a cost of about Rs. 14 million to meet the requirements of the woollen textile industry. The Plan programme includes establishment of two new fine-wool sheep breeding farms, and expansion of the existing farms, and provides for ram multiplication. There is considerable scope for expanding the export trade in wool, if quality can be standardized. Three new coarse-wool sheep breeding farms will be established, and six existing farms improved. The rams multiplied at these farms will be distributed amongst private breeders to improve the quality of stock. The main effort will be to improve the indigenous strains by selective breeding but they will be crossed as necessary with foreign breeds to improve both quality and quantity.

91. *Goats*.—The West Pakistan Government has banned the keeping of goats, unless stall-fed, because of their destructive eating habits, which have caused serious damage in range lands. Goats on range lands need to be eliminated by planned slaughtering, and the sheep population increased to replace them. The best breeds of goat will, however, be developed as stall-fed animals by selective breeding at three farms, while cross-breeding of local breeds with foreign strains will be undertaken on an experimental basis to study the effects on milk yield. By contrast, in East Pakistan where the problem of soil erosion and denudation of range areas does not exist, the need is to multiply as well as improve goats, especially the Black Bengal and the White Bearded breeds.

92. *Other animals*.—Mule, donkey, and horse breeding will be encouraged in West Pakistan because of their value as pack and transport animals. Donkey breeding will be carried out at the farm which is being opened at Mirpur Khas, and horse and mule breeding in Peshawar and the Frontier Regions.

Disease control and preservation of good stock

93. Although no accurate data on the incidence of diseases and losses of livestock are available, a contagious disease such as rinderpest can cause mortality of up to 60 per cent of the cattle population of the area affected.

In one year, it was recorded in certain parts of Hyderabad and Khairpur Divisions that the incidence of various parasitic diseases affecting cattle and sheep was 30 to 50 per cent. Various measures to prevent and control livestock diseases, parasitic or virus, were recommended in the First Plan. These included identification of the source of infection, intermediate carriers, and afflicted animals, which become sources of infection and carriers themselves; prevention through vaccination and inoculation; and ear-marking of key veterinary hospitals to function as centres of protective activity. During the First Plan period 26 new hospitals and dispensaries were opened and 16 mobile units provided, against the target of 52 and 20 respectively. Supplies of medicines were improved both in quality and quantity, and basic research and education facilities expanded. The Second Plan provides for the establishment of 100 new veterinary hospitals and dispensaries, and the modernisation of 250 existing dispensaries, priority in facilities being given to areas which are remote and inadequately served. It also provides for the establishment of 60 new mobile dispensaries to deal with serious outbreaks of epidemics, and to help in creating immune belts in border areas to check the introduction of diseases into the country. In the sparsely populated areas of Quetta and Kalat Divisions where dispensaries are widely dispersed, about 140 camel and jeep units will be provided to give greater mobility to veterinary staff. Boat units will be provided to serve areas in East Pakistan which are cut off during the monsoon.

94. Large numbers of cattle and sheep are brought into the country by *powindas* (nomads) from Afghanistan. These animals bring with them parasitic and other contagious diseases which affect the health of the local livestock. To check the spread of such diseases twenty-five outposts will be established on the recognised routes used by *powindas*, to treat and inoculate animals. Facilities at the existing diagnostic laboratories will be expanded, particularly in East Pakistan, where new laboratories will be established. The production of biological products such as sera and vaccine will be sufficiently increased at the laboratories during the Plan period to meet in full the needs of the expanded programme. These products and other important medicines should, in the long run, be manufactured on a commercial basis through private enterprise as far as possible, the role of the Government being restricted to prescribing and enforcing the required standards.

Animal nutrition

95. Feed and fodder supplies, particularly in East Pakistan, are limited. Reliable data are not available to measure the feed and fodder shortages, but visual inspection indicates that the deficiencies are large. In East Pakistan the increasing pressure of population on land has resulted in the conversion of village pasture lands to paddy or jute cultivation, and there are hardly any grazing grounds for cattle. In West Pakistan, the pressure on range lands is heavy, and has led to over-grazing, which has adversely affected fodder supplies. Certain crop and animal by-products now exported could be used for feeding of livestock.

96. The range lands in West Pakistan were surveyed during the First Plan period to assess their existing condition and cattle carrying capacity ; research into animal nutrition and fodder varieties was expanded at the Animal Husbandry and Agricultural Colleges ; and one animal feed mill was established by private enterprise. But the feed and fodder needs of livestock are so great that large deficits persist. The programme initiated in the First Plan period will be expanded during the Second Plan period. The nature and extent of feed and fodder deficits will be surveyed ; intensive cultivation of the areas already under fodder production will be undertaken, and suitable winter crops developed ; selected range lands with quick prospects of development will be utilized.

97. Little fodder is grown in East Pakistan, mainly because the pressure of population does not permit diversion of any substantial areas from food to fodder production. With the introduction of irrigation (not hitherto practised on any scale in East Pakistan) for producing a second crop during the year, fodder should be introduced into the cropping pattern. In addition, fodder seeds which are not easily produced in East Pakistan because of climatic factors should be imported from West Pakistan and made available to the farmers, if necessary initially at subsidized rates to encourage fodder sowing.

98. The East Pakistan Agricultural Department in association with the Forestry and Animal Husbandry Departments will explore possibilities of increasing fodder and feed supplies. Suitable fallow and uncultivated lands will be sown with such crops as *jowar*, *teosinte*, sudan grass, and elephant grass, which can be grown in winter and stored as dry fodder for feeding during the monsoon. Possibilities of drying and baling of grasses which grow luxuriantly in the monsoon, particularly in the *haor* areas of Mymensingh and Sylhet Districts, need to be explored. There is need also for investigating the possibility of developing a range economy in the high rainfall areas of Chittagong Hill Tracts, as well as of starting feed mills to process the available agricultural and industrial wastes.

99. In West Pakistan, efforts will be made to increase fodder production by intensive methods of cultivation such as better intercultural practices, and more manures and fertilizers. The use of waste products, such as molasses and rice bran, will also be encouraged. In addition, selected ranges will be developed for providing better fodder and feed. The establishment of a pilot feed mill at the College of Animal Husbandry and of additional mills through private enterprise, will improve the production of concentrated feeds. Research in animal nutrition based on the available feed and fodder will be continued by the Departments of Animal Husbandry and Agriculture.

Dairying

100. Milk is in short supply, especially in East Pakistan and in the urban reas of West Pakistan. Supplies in the rural areas of West Pakistan are

generally surplus to the local requirements, but poor transport checks the flow of milk to the towns, where milk is both expensive and adulterated. Lack of adequate facilities for the transport of milk results in low returns to the producers and means little incentive for the farmers to produce milk for the towns. The immediate problem is thus of transportation of surplus milk from the rural areas to the deficit urban areas.

101. During the Second Plan period, transport facilities will be improved to bring milk from the rural areas adjoining big towns. A milk re-constitution plant will be established in Karachi for combining imported milk powder with supplies of fluid milk from the surrounding rural areas, where milk collection and chilling centres will be set up. The chilled milk will be brought in insulated vans to the processing unit where it will be standardized, pasteurized and distributed to the consumers, through milk booths. Milk supply to Dacca and Lahore will be improved by setting up large dairy farms on the outskirts of the two cities; milk thus produced will be collected, pasteurized or sterilized, and distributed. Powdered and condensed milk plants will be established in surplus milk producing areas away from the towns, where its transport to cities in liquid form creates difficulties. A survey for this purpose is being conducted. This will help to make better use of the available milk and will encourage increased milk production in the countryside, in response to assured marketing facilities. A baby-food plant has already been set up at Rajshahi in East Pakistan, while another plant at Okara and a sterile milk unit at Rawalpindi will be established during the Plan period by private enterprise. Testing of milk for purity and effective enforcement of the laws against adulteration will be necessary. Superior breeding cows and buffaloes, imported into the towns as milch animals, are sold for slaughter after they become dry. In order to conserve this stock and to check the indiscriminate slaughter, salvage farms near the towns should be opened, where dry cattle could be maintained at reasonable cost.

Livestock products

102. To improve sanitary conditions in the congested cities, supply better quality meat and make efficient use of by-products, slaughter-houses should be removed to the outskirts of large cities and operated on modern lines. An abattoir for Karachi was sanctioned in 1959. The experience gained in operating this abattoir will guide similar schemes for Dacca and Lahore.

Research

103. Sectors of livestock research needing close study are causes and control of parasitic, virus, and bacteriological diseases; causes of sterility; animal breeding and artificial insemination techniques; processing of dairy products; dairy bacteriology; poultry and animal nutrition; and preparation and storage of biological products.

104. During the First Plan period, the Animal Husbandry Research Institutes at Comilla and Peshawar, working under the direction of the Central Ministry of Agriculture, and the research facilities at the Animal Husbandry Colleges of Lahore and Mymensingh were expanded. The facilities for research will now be enlarged, with the extension of existing laboratories at the research institutions, and the construction of new laboratories. A station for research on artificial insemination is being established at Karachi under the aegis of CENTO to come into operation early in the Second Plan period. In West Pakistan a section has been established within the Directorate of Animal Husbandry to study livestock production economics. A similar section will be established in East Pakistan.

Training of personnel

105. During the First Plan period, facilities were expanded in the two Colleges of Animal Husbandry for the training of stock assistants and animal husbandry graduates. Hostel and laboratory facilities were improved; additional lecture rooms were provided at the Lahore College of Animal Husbandry; and the Animal Husbandry College at Dacca was shifted to new premises near Mymensingh, where admissions rose to 250 students in 1959 from 140 students admitted in 1955.

106. The estimated requirements of various categories of staff required for implementing the programme included in the Second Plan are shown in Table 9.

TABLE 9

Requirements of animal husbandry staff, 1960—65

		East Pakistan	West Pakistan	Centre	Total
Graduates and post-graduates	..	230	550	125	905
Existing vacancies	.. ..	12	168	—	180
	Total	242	718	125	1,085
Stock Assistants	.. ..	110	530	125	765
Existing vacancies	.. ..	..	13	..	13
	Total	110	543	125	778

107. It is estimated that against these requirements, the existing colleges and schools will produce about 900 graduates and as many stock assistants after making some allowance for failures. Because demand for trained

personnel will continue to increase in future years, it is proposed to expand further the facilities at the existing colleges and schools during the Plan period. In addition, post-graduate courses will be started at the Colleges of Animal Husbandry, with refresher courses for field staff.

Development expenditure

108. Table 10 below gives the development expenditure allocated for the animal husbandry programme.

TABLE 10

*Public sector development expenditure on animal husbandry,
1960-61 to 1964-65*

(Million Rupees)

	East Pakistan	West Pakistan	Centre	Total
Disease control	18.1	22.1	..	40.2
Breeding	0.9	25.2	..	26.1
Education and research	6.1	2.4	11.1	19.6
Dairying	14.9	5.4	4.6	24.9
Others .. .. .	..	6.9	6.3	13.2
Total	40.0	62.0	22.0	124.0

Range management

109. West Pakistan has large areas of land which are either too arid or too steep and rocky for farming. Most of these areas are located in the Dera Ismail Khan, Bahawalpur, Khairpur, Hyderabad, Quetta and Kalat Divisions, and in parts of Peshawar and Rawalpindi Divisions. Due to the high intensity of grazing in these areas in the past, most of the lands have been practically denuded of their natural vegetation, and their livestock carrying capacity has been seriously impaired. As the supply of feed and fodder in other areas is also limited, the condition of livestock is generally unsatisfactory in most parts of the Province. Range management, therefore, assumes special importance in West Pakistan. It is not important in East Pakistan since rainfall is generally high, and farming and forestry constitute the main land uses in that Province. Livestock rearing is not generally a means of livelihood in East Pakistan.

110. The First Plan suggested that in conjunction with reconnaissance soil surveys of West Pakistan, a survey of potential areas for range development

should be carried out to locate surface and underground water points and range forage. The soil surveys of the type envisaged in the First Plan were not carried out for various reasons. A limited survey of the range lands was made in the Thal area, in Muzaffargarh and Bahawalpur districts, and in parts of the Quetta Division. A range management project was started at Yateabad in the Quetta Division in 1959; it is too early to assess its results. The responsibility for range development runs into many departments. The First Plan recommended that a Provincial range development board including the heads of various departments concerned, along with a small permanent staff, be created to develop detailed plans for range management and to supervise the implementation of such plans. This board was to determine over-all range development policies and set up other bodies to assist them in their work at the district level. This recommendation remained unimplemented, which accounts in part for lack of progress in the First Plan.

111. It is difficult to improve private or community-owned range lands because of the owner's lack of appreciation of the urgency of maintaining the vegetation in good condition. The Second Plan, therefore, proposes concentration on the development of state-owned range lands, where work can be started without delay and which can serve as demonstration areas for the villagers. The working of the range selected for development in different parts of the Province should include qualitative and quantitative improvement of forage and livestock, provision of supplementary and emergency feed, development of water places by installing open wells, tubewells, or windmills for pumping water, and disease prevention and control operations. Research to determine grazing capacity, ecological studies on range vegetation, and introduction of exotic plants of known grazing value should be carried out in five of the selected areas located at Nagar-parker, Ran-Pathani, Cholistan, Jhelum and in the Kalat Division. A Provincial development board is still needed for co-ordinating the activities of departments concerned with range development, notably the departments of Agriculture, Animal Husbandry, Forestry, Soil Conservation and Cooperatives. The board should prepare detailed working plans for the development of ranges, and should supervise the implementation of the plans through a nucleus range management staff.

112. A sum of Rs. 12 million is provided in the Plan for range management.

Forestry

113. Forests and forest products play a vital part in the economy of the country. They provide timber for construction, firewood for domestic use, and raw materials for a host of industries such as paper, matches, sports goods, plywood and hardboard, chemicals, pharmaceuticals, and rayon. In addition, they affect the climate, reduce soil erosion, regulate the flow of rivers, and provide unmatched opportunities for recreation. Some of these results can be valued in money; others cannot.

114. Despite denudation over the centuries, the country still has considerable forests, which cover about 8.7 million acres, or 3.7 per cent of the total land area. That this great national resource has not been exploited satisfactorily is evidenced by the scale of timber imports, which amounted to Rs. 20 million in 1958. Recent sharp rises in the prices of forest products indicate a widening gap between demand and effective supplies. The lack of firewood promotes burning of dung cakes which in turn deprives the soil of manure and affects its fertility. With the increased tempo of development and rising national income, the demand for wood for industrial use and for domestic consumption is likely to rise further. The Plan attempts to deal with problems of timber extraction and regeneration. It provides for augmentation of quantities of timber and fuel to meet the growing demand, while taking account of the protective value of standing forests, and of the danger to long-run supplies from over-cutting.

115. The main forests in West Pakistan lie in the northern areas, including the States of Amb, Chitral, Dir and Swat. There are also dry hill forests in the Quetta and Kalat Divisions, and in the north-western tribal areas. Plantation forests are located largely in the former Punjab, and are now being extended into the former province of Sind. The natural timber forests of West Pakistan are coniferous, lying in the hilly and mountainous regions where the growth rate is slow and regeneration in cut-over areas is not always successful. Large areas of West Pakistan have been completely denuded over the years ; luxuriant forests which once covered the lower Indus Basin are now non-existent. Broadly speaking, it is doubtful whether the present rate of extraction can be increased substantially without the danger of further reducing the forest area ; a forest inventory can provide a more definite answer. In the more settled areas of West Pakistan, trees continue to be cut excessively to meet timber and fuel requirements ; this further reduces the forest wealth.

116. In East Pakistan, the main forests are the evergreen and semi-evergreen forests of the Chittagong Hill Tracts and the tidal forests of the Sunderbans. Extensive unexploited deciduous forest resources are also found in the Chittagong Hill Tracts. Smaller forests are found in the Dacca, Mymensingh and Sylhet districts. The possibilities of immediate increases in extraction in East Pakistan are considerable even on the basis of present limited information ; the chances of short-term economic returns from the accessible reserve areas appear to be equally favourable. Prospects of expanded afforestation and natural regeneration are promising; because of favourable climatic conditions, forest growth is rapid, and natural regeneration is good.

General approach to forestry development

117. The main objectives of the forestry programme are increased extraction in East Pakistan, and afforestation in West Pakistan, with emphasis

on surveys to determine the forest resources of the States of Amb, Chitral, Dir and Swat, which need to be brought under the control of the Forest Department.

118. In the short run, the East Pakistan Government expect the newly established Forest Industries Development Corporation to increase the extraction of forest products very substantially in the Chittagong Hill Tracts. The Corporation will be responsible also for the development of a number of forest industries. The responsibility for the regeneration of areas from which timber is extracted by the Corporation will remain with the Forest Department, and the extraction programme of the Corporation will be determined in close collaboration with that Department, which will mark the trees to be felled. The long run programme for East Pakistan will include expansion of the forests through control of *jhooming* (shifting cultivation) in the Chittagong Hill Tracts, and re-afforestation of waste and degraded forest lands. *Jhooming* is a primitive method of agriculture which involves widespread destruction of forest areas ; it can be replaced by settled cultivation through a gradual process of social evolution. Because in many areas sufficient land for settled subsistence farming may not be available to absorb the former *jhoomers*, replacements may have to take the forms of horticulture, cash crops grown on small holdings, or livestock production based on improved grasses and fodder crops. Afforestation programmes throughout the Province must be related to prospective demand for the various forest products. Raw materials for the new industries must be produced through increases in soft-wood plantations and through the introduction of rubber, *catechu*, *kumbhi* and other plants of economic interest.

119. The afforestation programme in West Pakistan will be executed in natural geographical regions, primarily through watershed management, and related to other development activities such as irrigation, soil conservation and range management. Because of the difficulties of rapid expansion of the natural forests in West Pakistan, certain parts of the areas newly irrigated by barrages have been set apart for planting forests to increase firewood and timber production. Extension of irrigated plantations is also being undertaken in the former Punjab and Sind Provinces.

Surveys

120. There are two types of survey operations which are essential to the forestry programme. The first is the multi-purpose soil water survey which is advocated elsewhere in the Plan programmes relating to crop husbandry and water development. Afforestation plans should be related to soil and water data, particularly in areas where new forest crops and species are to be tried. The second survey of immediate importance to the forestry programme concerns the inventory of forest resources which is being undertaken in both East and West Pakistan. The extent and composition of the country's forest reserves are not fully known. The inventory preparation in both Provinces will be accelerated during the Plan period. First attention

will be given to the more accessible and economically important areas. In East Pakistan these are mainly government reserve forest areas ; in West Pakistan such areas lie in Amb, Chitral, Dir and Swat. After the inventory of the reserve areas has been completed, the unclassified forest land will be surveyed to determine what further areas should be reserved, and what areas be left to private development.

121. The present staff of the Forest Department in East Pakistan will, if necessary, be assisted in completing the survey by consultants from abroad, especially in interpreting the aerial maps and preparing the inventories, collecting data on growth rates, and estimating regeneration prospects. In West Pakistan the aerial photography carried out some years ago covered much of the forest area, but the Forest Department has neither adequate trained staff nor equipment to interpret the mosaics ; both will be provided during the Plan period. In addition, the West Pakistan Water and Power Development Authority is carrying out aerial photography of some of the areas not already covered to prepare a programme for watershed management. The use of the aerial photographs, in conjunction with field checks, is essential for the rapid preparation of an inventory. A watershed management survey will be made to ascertain present land use as well as the human and livestock population of the area. It will include classification of land by slopes, and the mapping of range lands and scrub and coniferous forests according to conditions of growth. Based on this survey, a detailed conservation and afforestation programme will be prepared. The treatment of the Indus and the Jhelum watersheds is included in the Plan. As the inventory is completed for particular areas, working plans for both East and West Pakistan will be developed for extraction, utilization, and regeneration or afforestation ; such plans already exist for some of the accessible reserve areas.

Extraction and use

122. The First Plan provided for an increase in timber production of about 26 per cent. Performance has been below expectations, and an increase of only about 13 per cent was achieved. The chief reason was slow progress in the major timber extraction scheme in the Chittagong Hill Tracts, where against a target of 40,000 tons of timber a year, only 10,000 tons a year were extracted. This was due to delays in providing machinery and saw mills and in building adequate access roads, and also to the failure to complete the Kaptai dam on schedule, which meant limitation of floating capacity of the Karnafuli river above the dam. In West Pakistan, working plans for the extraction of timber from the forests of Amb, Chitral, Dir, Swat and other areas of Frontier Regions were not prepared because of various administrative difficulties, nor was the exploitation of the Thatta tidal forests undertaken for the same reason and also because of lack of river craft.

123. For the Second Plan period, the annual target of timber extraction from the Chittagong Hill Tracts will be increased to 45,000 tons by 1964-65.

The second and equally important area is the Sunderbans, from which it is proposed to extract about 55,000 tons of timber per annum, against limited extraction at the present time. The total production of timber from both these areas should reach about 100,000 tons a year by 1965. To facilitate the work of extraction in East Pakistan, the programme includes also the provision of 1,000 miles of forest roads, timber extraction machinery and equipment and accommodation for staff.

124. In West Pakistan, 150 miles of roads will be constructed in the hill country so as to reduce exploitation costs. The extraction programme includes preparation of working plans for the forest resources of the northern areas of West Pakistan. These areas have been little exploited and not much is known about them. During the Plan period, inventory surveys will be conducted, and working plans for exploitation prepared. Any extraction programme in these areas will do no more than maintain output at its present levels, because the total forest area is limited, extraction has already gone far, and regeneration is slow. Substantial increases in fuel wood production will, however, result from the exploitation of the Thatta tidal forests.

125. The efficient use of forest resources requires that all extracted timber should be seasoned, and all non-durable timber treated with preservatives ; construction timber, telegraph poles and railway sleepers should be preserved by creosoting. These treatments will prolong the life of available supplies and will reduce the demand for replacement in future years. In West Pakistan two seasoning kilns, one preservation and creosoting plant, and two preservation and treatment plants will be built in the public sector during the Plan period. The East Pakistan Forest Industries Development Corporation will be responsible for establishing saw mills and creosoting plants, and for the commercial development of pre-fabricated structural materials, box-wood, wood oil, honey and tanning materials. Two timber preservation plants are already in operation in East Pakistan, and a third will begin operation soon. These schemes should be executed in participation with private enterprise. If private capital is not forthcoming, however, the Forest Industries Development Corporation will finance the industries directly.

Afforestation and regeneration

126. As indicated above, an extraction programme must be supported by afforestation or natural regeneration to ensure optimum output over a period of time. In West Pakistan, where large areas previously forested are now completely or partially denuded, the afforestation programme is especially important, because natural regeneration is insufficient in most of the hilly and mountainous areas of the Province. Afforestation of the watershed around Warsak, and of the Indus above the proposed Turbela dam should be pushed ahead to avoid premature silting of the water storage basis. The afforestation programme in the First Plan included schemes for areas where the rainfall was over 30 inches per year, and the lands were unsuitable

for crop cultivation. More than 190,000 acres were afforested, and about 170,000 acres regenerated during the first three years of the First Plan period. During the Second Plan period, afforestation will again be concentrated in these areas, covering almost 200,000 acres. In addition, 150,000 acres will be regenerated.

127. Because of the limited possibilities of increasing extraction in the natural forests of West Pakistan, it is essential to put a certain proportion of the newly irrigated areas under forests, particularly for firewood production. The programme includes the afforestation of about 110,000 acres of irrigated land during the Plan period. Permanent nurseries covering 2,000 acres will be developed to produce *shisham* seedlings and ornamental species.

128. There are ample opportunities for increasing forest resources by planting trees along roads, canals, and rivers. During the first three years of the First Plan period, 80 miles of roads and 1,800 miles of canal banks were planted with trees. The Second Plan proposes that trees should be planted along approximately 2,000 miles of roads and canals in West Pakistan. The Departments of Irrigation and Communications and Buildings should act in close co-operation with the Forest Department to implement this proposal. There are large areas of *bela* (riverine) and *rakh* (range) lands under the control of the Forest and Revenue Departments. These lands need to be surveyed to determine their possible uses; areas which cannot be brought under the plough should be developed as forests by the Forest Department. Similarly, the *guzara* (community) forests of the Murree Hills need to be developed; the recommendation of the Murree Hills Commission for placing them under proper management should be implemented.

Farm forestry

129. The planting of trees by the farmers within or along the boundaries of their fields will be encouraged, especially in the newly colonized areas. Four trees per acre should be planted by each farmer as a condition of allotment of land by the Government. In settled areas the programme should be promoted through campaigns organized by the Village AID workers and the institutions of Basic Democracies. This programme has great possibilities. The Forest Department will supply seeds and seedlings from nurseries established for the purpose. The Plan provides for ten nursery units in non-forest districts.

130. Two methods will be used to overcome the paucity of forest areas in East Pakistan. First, private landowners will be encouraged to plant trees around their homesteads and on unculturable village waste land. Second, the Government will undertake the afforestation of 18,000 acres of unculturable waste land in compact blocks and deteriorated forested areas, in addition to planting about 30,000 acres with industrial hardwood and semi-hardwood species, such as teak, *sal*, *jaral*, *semul*, *kadam* and *petali*.

Scientific forest management will be introduced over approximately 100,000 acres of privately owned forest lands in Sylhet District. Protection of forest lands, and the survey, demarcation and maintenance of forest boundaries will receive special attention. An effort will be made to increase firewood plantation by regeneration in about 3,000 acres of government forests. Afforestation will be used in reclaiming waste lands unfit for farming ; 25,000 acres of these lands will be planted with *sal*.

Afforestation of trees of special economic importance

131. Little progress was made on specialized afforestation in the First Plan period. An enlarged programme will be undertaken in West Pakistan in the Second Plan period with varieties giving promise of high economic returns. These plantations will include 2,400 acres of walnut trees in the Abbottabad Circle, 1,000 acres of *tendu*, 3,500 acres of *catechu*, 3,000 acres of poplar, and similar plantings of eucalyptus, mulberry, *hydia*, *travia*, and *gmednia* in the Kotri and Sukkur barrage areas. In addition, *lac* cultivation will be encouraged, and the area under medicinal plants will be expanded. Plants of economic value will also be grown in East Pakistan on an aggregate area of nearly 10,000 acres, *kumbhi* on 7,000 acres, *tendu* and *catechu* on 1,000 acres each, rubber on 700 acres, and *rauwolfia serpentina* on 300 acres.

132. Bee keeping, *lac* cultivation, and sericulture will be developed as subsidiary forest industries in both Provinces.

Research

133. Forestry research is at present being undertaken by the Central as well as Provincial Governments. The Food and Agriculture Council of Pakistan supports the research programme, which includes the production of seeds and medicinal plants, the establishment of a research sub-station for medicinal plants and shrubs in East Pakistan, and the establishment of shelter belts to study their effects on the yield of agricultural crops. The programme for both the Provinces also includes research on silvicultural, botanical, ecological, entomological and chemical problems and on forest plants, seed treatment, and dry plantation techniques. A pilot project will be carried out in East Pakistan to investigate the economic possibilities of growing cashew-nuts, *mahua* and *agar*. *Catechu* extract will be tested for the production of *katha* as an ingredient for betel, and its bark as a tanning material. Research on the use of forest products will be expanded. This will include studies of the structural characteristics of various woods, the suitability of indigenous timber for various industrial uses, plywood, chip-board, and fibre board manufacture. Research will also be undertaken on various techniques of wood preservation. For these programmes, provision has been made to develop and expand facilities at the existing research institutions and stations, especially at the Pakistan Forest College and Research Institute, Peshawar.

Education and training

134. The Forest Departments are under-staffed, and the development programme will require substantially larger number of technicians at all levels. During the First Plan period, the building of the Pakistan Forest College and Research Institute at Peshawar was undertaken; it will be completed during the Second Plan period. The College will be able to admit a larger number of officers and rangers for training. In addition, a new school for the training of foresters was built at Bahawalpur in West Pakistan, and the capacity of the existing school at Sylhet in East Pakistan was expanded.

135. It is estimated that in the Second Plan period the West Pakistan programme will require an additional 36 officers, 85 rangers and 180 foresters. The East Pakistan Forest Department will require about 20 officers, 35 rangers and 185 foresters; in addition the Forest Industries Development Corporation will require 4 officers and about 20 rangers. As noted above, the Pakistan Forest College will train officers and rangers during the Plan period. Facilities at forestry schools for the training of foresters will be expanded to provide for the additional requirements, as well as normal replacements. The completion of the Forestry College and the Forest Institutes, along with re-employment and promotion of junior staff, will meet the expanding staff needs of the forestry development programme. Senior staff may need some training abroad. Staff will receive in-service training in refresher courses at the Forest Institutes and the College.

Forestry statistics

136. The First Plan proposed that all forest areas, whether private or state-owned, should be classified on the basis of their economic possibilities as "protective" or "productive" forests, the latter being sub-classified as "timber", "firewood", and "pastures". Practically no improvement in the collection or maintenance of statistics occurred in the First Plan period. Because sound planning depends on good statistics, this proposal is strongly reiterated.

Parks and game sanctuaries

137. In order to encourage tourism and to develop the recreational aspects of forestry, the Plan provides for the establishment of three national parks. These will be located at Chhanga Manga near Lahore, in the Kaghan Valley, and in the Chittagong Hill Tracts. A game sanctuary will be established in the Sunderbans.

TABLE 11

Public sector development expenditure on forestry, 1960-61 to 1964-65

(Million Rupees)

	East Pakistan	West Pakistan	Centre	Total
Extraction and utilization	29.1	16.0	..	45.1
Afforestation and regeneration ..	11.4	46.2	..	57.6
Research and education	3.3	3.4	15.3	22.0
Other schemes	7.6	1.5	..	9.1
Total	51.4	67.1	15.3	133.8

Soil conservation

138. The need for soil conservation occurs principally in West Pakistan, where the problem of soil erosion is serious. Of the total land area of some 198 million acres in the Province, about 23 million acres are irrigated and the balance is either *barani* (rainfed arable land) or hilly and waste land. Over 160 million acres suffer in varying degrees from wind and water erosion. Destructive exploitation, over-grazing, deforestation and consequent erosion of the upland areas, have contributed towards siltation of river beds and frequency of floods. There is, accordingly, great need for a comprehensive soil conservation programme.

139. The gravity of the problem has been long realized, but serious steps to find a solution were taken only in 1954 when a three-year pilot project was initiated to cover five affected areas in the districts of Gujrat, Jhelum, Rawalpindi, Campbellpur and Mardan. The scheme was expanded in scope in 1958 to provide for anti-erosion operations in fifteen areas in the upland districts. By the end of the First Plan period, however, only eight new demonstration areas were opened. Progress of work was impeded by difficulties arising from the pattern of small holdings, the weak financial position of the farmers, and delays in procuring the required machinery and trained personnel.

140. The Second Plan provides for completion of the project under way, starting operations on eight demonstration areas. Each area, comprising a complete catchment or a sub-catchment basin, will be about 15,000 acres in size, making a total of about 100,000 acres. The work in these areas will include soil, agronomic, range, forestry, engineering and other surveys and land capability classifications; preparation of sub-catchment working plans and field applications; construction of broad-based level terraces, diversion

and bench terraces, water spreading devices, and contour tillage ; development of water disposal systems, ponds, waterways and agronomic and cultural conservation practices. Work relating to range and forest lands, and run-off, and gully control will also be undertaken depending on the type of area to be handled. Working plans will be drawn up for small sub-catchments of about 200 to 300 acres, starting from the top of the catchment downwards. As the work is to be carried out on a complete catchment or sub-catchment basis, it will be necessary to treat every field starting from the higher elevations within each unit. Of the areas not covered so far, Kohistan and Registan tracts of the Hyderabad Division need early attention. The programme for the improvement of these areas include dry zone afforestation, grazing control and mechanical reclamation of suitable lands. Three centres will be set up in the area surrounding the upper reaches of the Jhelum river to develop soil conservation techniques and to check soil erosion in that territory. An area of 1,000 acres will be treated every year at each centre. Provision is made for the training, education, and research needs of the programme. Recommendations in the First Plan for co-ordination of conservation plans is reiterated. There is need, also, for carrying out extensive reconnaissance surveys of West Pakistan on a regional basis to determine more precisely the gravity of the problem and the appropriate programmes for different areas.

141. Soil conservation in West Pakistan poses a problem of great immensity (comparable in this respect with the problems of waterlogging and salinity), requiring outlays for its solution far beyond presently foreseeable resources. The Plan, therefore, attempts no more than to approach the problem on a very limited and selective basis. Far more effective measures to deal with this problem will be necessary in future Plan periods. A sum of Rs. 16 million is provided for the programme in the Second Plan.

Fisheries

142. Fish is an important protein food, rich in phosphorus, fat and minerals. As the diet of the people is generally low in protective foods, fish can provide a valuable balancing element. Fish can also provide important by-products in the form of fish oils, manure, and animal and poultry feed. The country's resources in fish, especially marine, are rich and abundant, as revealed by surveys made since 1951 by the Central Fisheries Department along the coast of West Pakistan, and by Japanese trawlers in the Bay of Bengal. Hitherto this rich resource has remained unexploited.

143. The main objective of the fisheries programme is to exploit this wealth : to find and catch more fish, and to transport and market it with minimum wastage. The processing of fish for export is an important corollary to the production effort, with prospects of substantial foreign exchange earnings. These general objectives, with technical and organizational measures for their achievement, were also stated in the First Plan.

144. The marine and inland fisheries programmes differ in many respects, and are discussed separately. Many activities must be undertaken directly by the Government, but the major responsibility for increasing fish production must remain with the private sector: the individual fishermen or co-operatives. The Government can help by providing credit, special concessions, training, research, and extension facilities.

145. The First Plan programme for the development of fisheries was not fully implemented. Supplies of fish from the country's inland and coastal waters increased from 256 thousand tons in 1954-55 to 290 thousand tons in 1959-60, an increase of 13 per cent against the target of 30 per cent.

TABLE 12
Fish production, 1954-55 and 1959-60 and targets 1964-65

	1954-55	1959-60	1964-65	Increase 1959-60 to 1964-65
	(Thousand tons)			(Per cent)
East Pakistan	193	223	260	17
Marine	23	37	60	62
Inland	170	186	200	8
West Pakistan	63	67	100	49
Marine	48	51	74	45
Inland	15	16	26	63
All Pakistan	256	290	360	24
Marine	71	88	134	52
Inland	185	202	226	12

Programme for the Second Plan period

146. The fisheries programme in the Second Plan aims at increasing the supply of fish and promoting its more effective use. To these ends, the Government's responsibility will include initiation of a marine fish survey; assistance to the fishing industry, both marine and inland, in improving their craft and equipment; provision of facilities for better marketing and processing of fish; development and conservation of fish in inland waters; improvement of facilities for training, research, and collection of statistics; and encouragement of fisheries co-operative societies. The production target is to increase fish supplies by 24 per cent during the Plan period.

Marine fisheries

147. *Surveys.*—Although preliminary surveys have been encouraging, modern deep-sea fishing requires very detail information about fishing areas. The larger fishing nations maintain survey and scouting vessels scattered

throughout the world. Effective exploitation of Pakistan's fisheries resources will require constant surveying and scouting in the adjacent waters. To this end the Government will establish two marine survey units to operate in the waters of East Pakistan, and off the coast of West Pakistan. These units will also collect oceanographic and hydrological data about salinity, temperature, and currents, to help in determining the habits and migration of fish.

148. *Fishing technology.*—The sailing boats which operate off the coast of West Pakistan are of very limited range, but are seaworthy, and can be easily converted into mechanized trawlers. In East Pakistan, however, the existing fishing boats are unsuited to conversion, and new boats are required. During the First Plan period, 163 marine diesel engines were provided through foreign aid ; most of them have been sold to fisheries co-operative societies, and installed in new hulls. In East Pakistan two power launches and a few smaller boats were constructed and sold to fishermen on credit ; a dozen more mechanized boats are under construction. The Second Plan provides for the construction and mechanization of about 400 fishing boats, mainly by private enterprise, with engines and other equipment to be procured through the cooperatives against import licences to be given by the Government. To encourage private enterprise to make this investment, credit facilities and tax concessions are proposed. It is believed that 400 craft is the maximum the societies will be ready to undertake by 1965.

149. Modern fishing equipment includes nylon nets, synthetic floats, hooks, coir, and nylon ropes ; fish catches are increased when improved gear is introduced. The First Plan provided Rs. 3 million for nylon twine. Rs. 7.5 million for the import of nylon twine is provided in the Second Plan ; in addition, other equipment will also be imported. The objective is to modernize about thirty per cent of the present fishing gear by 1965.

150. *Marketing.*—The marketing of fish requires adequate transport, storage, and processing capacity, both to provide good supplies to the home market, and to develop an export trade in fish and fish products. During the First Plan period, work was begun on a modern fish harbour at Karachi, including a cold storage plant, wholesale market, sea-food cafe, technological and biological research station, workshop, slipways, and fish drying yards. The fish caught off the Mekran coast require rapid transport to the market in Karachi, or must be cured at the unloading centres ; accordingly marine diesel launches were constructed to carry fish to Karachi.

151. No marketing organization or market premises for fish exist on the Gwadar coast, nor are landing piers or other facilities available to berth the boats on return from fishing trips. The Plan provides for these facilities. Modern fish curing yards are being established at Gwadar and Pasni. In addition to the facilities at Karachi Fish Harbour, provision has been made for cold storage plants in other parts of the city. Sixteen modern fish stalls constructed to retail fresh fish have not proved popular. An investigation should be undertaken to find economic methods of fish distribution, and to avoid repetition of unremunerative marketing practices.

152. The processing of marine products includes canning and freezing of fish, shrimps and prawns, and curing of fish by salting and drying. Three freezing plants for fish and shrimps, and one fish canning plant are in operation at Karachi. These plants will be used to full capacity, as the fish supply expands, and still more will be needed. The Plan provides for one new freezing plant and one canning plant on the Mekran coast. Two more fish-meal plants on the Mekran coast will be added to the two already in operation at Karachi. In East Pakistan, a canning and a freezing plant for shrimps are being constructed by private enterprise, with encouragement from the Government. Thirty tons of cold storage and ten tons of ice plant capacity are being installed at Chittagong.

Inland fisheries

153. *Development and conservation.*—Inland fish resources are more limited, and an increase in output is more difficult to obtain than from marine fisheries. Conditions vary widely between the Provinces. In East Pakistan, where inland fishing is a large and widespread industry, the main problem is to improve the quality of fish. In West Pakistan, the primary need is to extend the areas devoted to fish farming.

154. The extension of fishing areas must start in both the Provinces through the supply of fish fry and fingerlings to private individuals, and through the stocking of government-owned tanks, ponds, *bhils*, and reservoirs. The Plan proposes the addition of 26,000 acres in West Pakistan and 25,000 acres in East Pakistan to the existing fish production areas. Many tanks, *bhils*, and derelict water areas will need some improvement before they can be stocked. The supply of fry and fingerlings will be assured by establishing additional fish supply centres in West Pakistan. Fry will be collected, raised to fingerling size, and then supplied to private growers at a nominal price. In East Pakistan, fry will be purchased from individual suppliers, stocked in reclaimed water areas, and sold cheaply for stocking water areas where they are not available. About fifty fish fry multiplication farms will be established in East Pakistan.

155. In order to conserve fish resources, legislative measures have been introduced in both the Provinces, but have not been effectively enforced, particularly in East Pakistan. More vigilant enforcement will be necessary.

156. Suitable arrangements do not exist in the canal regulators either to keep fish from entering the canal, or to permit them to migrate into the rivers when the canals are closed for maintenance. This leads to a heavy loss of fish every year. Fish ladders already provided in the barrages will be improved during the Plan period to avoid such losses, and to facilitate ascent by the fish for breeding.

Marketing

157. It has been estimated that almost half the fish sent to market deteriorates in varying degrees before it reaches the consumer. To reduce this waste, public sheds are to be provided at the main assembling centres to prevent exposure of fish to the sun ; a fish landing jetty is to be constructed at Khulna Ghat ; a jetty and a wholesale fish market are to be provided at Chittagong ; eight insulated vans and a thousand insulated boxes are to be provided to transport fish to the markets in West Pakistan ; eleven mechanized fish transport launches in East Pakistan are to be sold to private persons or cooperatives on credit ; ice and cold storage facilities are to be provided ; four cold storage and four ice plants will be built in West Pakistan, and three combined cold storage and ice plants in East Pakistan .

Training and education

158. One of the major difficulties in implementing the First Plan was shortage of adequately trained staff. The Second Plan provides for additional training facilities in both the Provinces, with extension techniques to promote the expansion of the industry. In West Pakistan, a sub-centre will be started at Peshawar during the Plan period to impart training to the staff and others interested in the technique of fish production. This will supplement the existing training centre at Lahore. Village AID workers and development officers also will be given similar training. In East Pakistan, the Fisheries Training Institute which is being set up will train the staff of the Fisheries Department. The Plan provides also for the services of fisheries specialists to be made available at district headquarters and in all Village AID development areas where required. In East Pakistan, the extension programme includes fisheries fieldmen, attached to each sub-division.

Research

159. Examples of current research are the control of aquatic vegetation ; elimination of predacious animals in ponds ; culture of shrimps, pearl oysters, and pearl mussels ; and classification, distribution, and migratory habits of *hilsa*. Other problems to be investigated during the Plan period include breeding of foreign varieties of fish, control of fish parasites and diseases, and development of by-products such as shark oil and fish glue.

Statistics

160. Fisheries statistics are in an unsatisfactory state ; the methods of collection and coverage need substantial improvement. The Plan proposes collection and compilation of statistical data by the Fisheries Departments relating to fish production, catches, number of fishermen, boats, gear, tackle, cold storage and transport facilities, resources of available water areas, and loss of fish due to putrefaction during transit.

Private sector

161. Cold storage, ice plants, fishing and carrier vessels, and fish industries, such as canning, freezing, and fish meal manufacture are to be developed through private enterprise, with government encouragement and provision of credit facilities.

Cooperative organization

162. Fishermen generally have insufficient capital to mechanize their craft or modernize their equipment ; they are unable also to transport, store, and market their product efficiently. The most effective way to help them is through organization of cooperative societies under efficient management. The Karachi Fishermen's Cooperative Society is a good example of what is needed and can be done. The society extends credit to its members, undertakes marketing, and provides fresh water supply, hospitals for the fishing villages, pensions for disabled fishermen, and schooling for the children of members. The creation of similar cooperatives in East Pakistan and on the Mekran coast will require assistance from the Government. Cooperative organization can also be extended to inland fisheries, where the market is large, and the fishermen face many of the same difficulties in transport, marketing, and storage as do the marine fishermen.

163. Table 13 summarizes the estimated expenditure in the public sector on fisheries development during the Plan period.

TABLE 13
*Public sector development expenditure on fisheries,
1960-61 to 1964-65*

(Million Rupees)

	East Pakistan	West Pakistan	Centre	Total
Development and conservation ..	13.0	1.9	12.4	27.3
Marketing	2.3	2.5	11.4	16.2
Education	0.5	0.2	0.4	1.1
Research	1.5	0.2	5.9	7.6
Other programmes ..	..	0.8	(a)	0.8
Total ..	17.3	5.6	30.1	53.0
Less recoveries ..	2.8	1.8	2.4	7.0
Net total ..	14.5	3.8	27.7	46.0

(a) Less than half a million rupees.

Agricultural education

164. There are at present three agricultural colleges in West Pakistan, located at Peshawar, Lyallpur and Tandojam, and one in East Pakistan at Dacca. To promote the development of teaching and research programmes

to the highest level, an agricultural university will be established in each Province. These universities will provide professional training in agriculture, animal husbandry, agricultural economics, fisheries, cooperation, agricultural engineering and basic sciences. To ensure liaison between the universities and the Government, it will be an advantage if the representatives of the Central and Provincial Governments concerned with rural development are made *ex-officio* members of the governing bodies of the universities. Schools for imparting elementary academic training in agriculture, animal husbandry, forestry and fisheries may continue to be run by the respective government departments and their training standards will be improved. It is also recommended that the subject of agriculture be included in the courses of all high schools in rural areas in order to establish a firmer base for expanding technical training in agriculture.

165. The facilities at existing colleges for the production of graduates and post-graduates in agriculture will be expanded so as to admit a total of 600 students per year against the existing enrolment of 380 students. Because of the heavy attrition rate in agricultural education, actual availability of new graduates during the Plan period is estimated at only 980, of which 400 will be provided by the Agriculture College, Lyallpur, 210 by the Agriculture College, Tandojam and 140 by the Agriculture College, Peshawar; or a total of 750 graduates from the institutions of West Pakistan. The Agricultural Institute, Dacca is expected to supply 200 graduates, thus indicating a serious deficiency in East Pakistan. Some 30 graduates are expected to come from agricultural institutions abroad.

166. As indicated in Table 14 the estimated requirement for agricultural graduates for the Plan is 1,040, including allowance for the filling of existing vacancies but excluding any allowance for replacements necessitated by normal wastage.

TABLE 14

Estimated additional requirement of agricultural graduates and post-graduates for the Second Plan

	East Pakistan	West Pakistan	Centre	Total
Provincial Agriculture Departments ..	180	360	..	540
Agricultural Bank, ADFC, rural credit, marketing agencies and others ..	20	20	100	140
Central Ministry of Agriculture ..	..	..	60	60
Food and Agriculture Council of Pakistan and Cotton and Jute Com- mittees (research schemes) ..	..	..	60	60
Total ..	200	380	220	800
Existing vacancies	30	200	10	240
Grand total ..	230	580	230	1,040

167. The gap can be closed by employing graduates of pure science wherever possible ; for example, graduates and post-graduates in zoology and entomology can be employed on plant protection work. The estimates indicated in the above table are based on the assumption that no agriculture graduates will be available for the Village AID organization, which will have to recruit its personnel from other sources. It is likewise assumed that agricultural credit organizations will be able to obtain some of their needs through specialized training courses in cooperation, credit and related fields.

168. A sum of Rs. 40 million has been provided in the Plan for the promotion of agricultural education.

Rural credit and cooperative marketing

169. The great majority of farmers in the country lack capital for productive investment. They need credit to purchase and maintain equipment, to purchase seed, fertilizer, and bullocks, and even to tide over their consumption requirements during the interval between sowing and harvesting. No country-wide survey has been conducted to ascertain the extent of agricultural credit requirements, but it is certain that the needs are very great. The various sources of credit are *taccavi* loans by the Government, the cooperative societies, the Agricultural Development Finance Corporation, the Agricultural Bank, and non-institutional sources such as friends and relatives, landlords, commission agent, and private money-lenders.

170. *Taccavi* loans are given by the Government under the Land Improvement Loans Act, 1883, and Agriculturists Loans Act of 1884. These loans are repayable over a period of one to twenty years, depending on the purpose of the loan. Loans may be made at reduced rates of interest or even interest-free ; in bad seasons, the Government may suspend repayment, remit interest, or write off the loan altogether. The loans made and the recoveries realised by the Government during 1955-59, according to the Credit Inquiry Commission Report, 1959, amounted to Rs. 89 million and Rs. 33 million respectively. The position was relatively more satisfactory in West Pakistan than in East Pakistan. Various reasons can be given for the low recoveries : the amounts loaned are usually small and can hardly be considered as production loans ; it is generally taken for granted by the farmer that *taccavi* loans are in the nature of gift or relief rather than loans to be repaid ; and default was encouraged by indiscriminate remissions granted in East Pakistan in past years on political considerations.

171. The cooperatives, which were started in 1904, are another source of credit. The framework of the cooperatives consists of Provincial banks at the apex level central banks at the district or sub-division level, and societies affiliated to the central banks at the primary level. The First Plan attached high priority to the development of the cooperative movement. However, little was accomplished during the Plan period. Table 15 summarizes changes in number, membership and working capital of cooperative banks and societies during 1955—59. In East Pakistan there was a fall in the number

and membership of societies as many ineffective societies were liquidated and others amalgamated ; the working capital increased insignificantly but the amount of loans disbursed and recoveries made registered a decline. In West Pakistan, however, the number of cooperative banks and societies, their membership, working capital and advances showed some increase during the same period.

TABLE 15

Numbers, membership and working capital of cooperative banks and societies, 1955-56 to 1958-59

	1955-56	1956-57	1957-58	1958-59
	(Thousands)			
East Pakistan :				
Number of societies	8.4	6.7	6.6	6.6
Membership :				
Primary and central societies ..	13	13	12	12
Individuals	2,387	1,380	1,446	1,400
		(Million Rupees)		
Working capital	113.6	104.0	105.6	115.0
West Pakistan :				
	(Thousands)			
Number of societies	20.0	20.8	21.6	22.3
Membership :				
Primary and central societies ..	34	35	35	35
Individuals	890	918	946	973
		(Million Rupees)		
Working capital	416.2	453.2	457.5	462.7
Total				
	(Thousands)			
Number of societies	28.4	27.5	28.2	28.9
Membership :				
Primary and central societies ..	47	48	47	47
Individuals	3,277	2,298	2,392	2,373
		(Million Rupees)		
Working capital	529.8	557.2	563.1	577.7

Source : Provincial Registrars of Cooperative Societies.

172. The Agricultural Development Finance Corporation was established in 1952 with an authorized capital of Rs. 50 million. By June 1959 the Corporation had established 17 branches—8 in East Pakistan, and 9 in West Pakistan, and had advanced Rs. 27.3 million and sanctioned another Rs. 18.7 million as loans. Most of these were for medium and short term periods. Recoveries amounting to 75 per cent of the principal and 80 per cent of the interest due, were made during the same period. The performance of the Corporation has been limited by lack of staff, difficulties

on the part of the borrowers in providing security ; rigidities (now relaxed) in laws restricting transfer, sale, and mortgage of land ; lack of full proprietary rights by the settlers in certain new areas such as the Thal and Kotri Barrage ; and time consumed by the Corporation in checking whether the property offered as security was free from encumbrances.

173. The Agricultural Bank was established in 1957 with an authorized share capital of Rs. 200 million of which Rs. 30 million was subscribed, Rs. 20 million by the Central Government and Rs. 5 million each by the Provincial Governments. The Bank established sixteen branches—eight in each Province—and commenced business in January 1959 in East Pakistan, and in April 1959 in West Pakistan. By June 1959 loans amounting to Rs. 3.86 million were sanctioned ; of these Rs. 2.92 million was actually disbursed. All loans due for recovery were recovered.

Proposals in the Second Plan

174. *Cooperatives.*—The best prospect for solving the problem of rural credit lies eventually in setting up cooperatives. The cooperative system has clear advantages over other systems ; it provides credit to the farmer almost at his door without his having to travel long distances as he must to obtain *taccavi* or other loans ; the members of the cooperatives have an intimate knowledge of one another's financial position and borrowing needs ; and the overhead and administrative expenditures are low. A prerequisite of success, however, is that cooperatives must function under sound management. The farmer should be able to obtain loans at the right time, at reasonable rates of interest and without harassment, and the recoveries of loans should be satisfactory.

175. The Plan provides for the rehabilitation as well as further development of the cooperative movement at all levels of cooperative institutions : the primary societies, the secondary societies (usually called the Central Cooperative Banks), and the Apex Bank. The primary societies will have individuals as members ; the Central Cooperative Banks will have the primary societies within their jurisdiction affiliated to them as members and will have no individuals as members ; and the Apex Bank will have the Central Cooperative Banks affiliated to it as members and will have no individuals as members. There will be only one Apex Bank in each Province. The Central Cooperative Banks and the Apex Bank will be debarred from making loans to individuals. At present the Central Cooperative Banks are engaged in commercial banking in addition to their normal co-operative business. It is proposed that they should withdraw from commercial banking business as soon as possible and concentrate exclusively on cooperative business.

176. The proposed cooperative hierarchy is expected to provide the necessary support to the primary societies. All cooperative institutions are expected to mobilize savings in the form of share capital and of deposits invited by offering attractive rates of interest. Only as a last resort should the banks borrow from the State Bank, which should not as a rule provide funds at subsidized rates. The cooperative institutions should be encouraged to mobilize their own resources and should not become a channel for pumping State Bank funds into the economy, with consequent serious inflationary effect. The Government may participate in the share capital of the Apex Banks up to one-third of the paid-up share capital.

177. In the development of the cooperative movement, the main effort should be concentrated on the organization of the primary societies. Although it is highly desirable to cover the whole country by effective cooperatives in the shortest possible time, the programme proposed in the Plan is limited by the availability of staff and financial resources, and the ability to organize efficient societies. It is proposed that at least 500 new large primary societies should be established during the Plan period in West Pakistan, preferably in the fully staffed Village AID areas. Each such society should have a membership of about 100, a paid-up share capital of Rs. 10,000 and a loan capacity approaching Rs. 100,000. Besides providing credit, these societies should undertake the marketing of produce and the supply of essential requirements of their members. The societies should have paid secretaries trained at the Cooperative Colleges. Furthermore, at least 10,000 new small societies will be organized. In addition to the establishment of new societies, the Plan provides for the reorganization of at least 1,250 existing small co-operative societies which should, where possible, be expanded in size. In East Pakistan, 500 of the existing 3,500 union multipurpose societies will be reorganized, preferably in the fully-staffed Village AID areas, with a membership of about 300 functioning in a way similar to that of the primary societies in West Pakistan. In order to set up new, and develop and improve the existing societies, the Village AID workers, under the general guidance and supervision of the cooperation and marketing specialist at the development area level, will promote the spirit of self-help and mutual help to foster the cooperative movement.

178. The management of the primary societies should endeavour to ensure that loans granted are used for the productive purposes for which they are obtained. With rare exceptions, loans should be extended in kind to ensure their proper use. The Village AID worker, with the assistance of the specialists available in the development area, should help the societies to determine the farmer's needs for credit, and also help the farmer to use the loans effectively. The loans will be extended at a rate of interest which should enable the societies to cover the cost of administering loans. Loans overdue should be recovered as arrears of land revenue by the revenue authorities.

179. One of the reasons for the slow progress of the cooperative movement is the lack of marketing facilities provided to the farmers by cooperatives. In sizable market towns there should be a cooperative marketing society (secondary level) which should handle the produce of its constituent primary credit societies, as well as of their individual members. The marketing societies will undertake the disposal of produce, construct godowns at suitable centres, and supply improved seeds, fertilizers, and other requirements of the members. The Plan proposes the establishment of 100 marketing societies in West Pakistan. Each marketing society will serve about 20 to 30 members primary cooperative societies, market the produce, and buy the supplies needed by members. To make the societies work successfully, the by-laws of the credit cooperative societies should restrict sale of produce by a member farmer to the marketing society, if a loan has already been advanced by it. In any case he should be able to obtain loans against his produce. The farmer should be able to deposit his produce with the marketing society and obtain a receipt which he could use as a negotiable document. In East Pakistan 30 central multipurpose societies will be reorganized during the Plan period. These societies will act as central marketing associations for the affiliated union societies and will purchase produce from them as well as from their individual members.

Taccavi loans

180. Until cooperative societies are organized throughout the rural areas, *taccavi* loans will continue to be made to meet agricultural credit needs, though on a progressively declining scale. During the Plan period, *taccavi* loans will be extended mainly to four types of areas ; (i) where cooperative societies do not exist and are not likely to be established ; (ii) where offices of the Agricultural Bank of Agricultural Development Finance Corporation do not exist ; (iii) where colonization is in progress but cooperative societies have not been or are not likely to be established ; and (iv) in special cases in areas where land reforms are being implemented. While the procedure of securing *taccavi* loans should be simplified to help the farmer, there should be equal insistence on making loan recoveries more effective. Loans should be large enough for the productive purpose for which they are made, and should be issued in kind to the extent possible. There should be continuous supervision and audit to see that they are properly used. Efforts should be made to recover the outstanding loans, and an investigation made to identify the causes of poor recovery, delays, and remissions, to serve as a guide to future policy.

Agriculture Bank

181. The Agricultural Development Finance Corporation and the Agricultural Bank, though independent of each other, operate in the same field of activity, except that they function in different geographical areas.

Both institutions are organized to provide short, medium and long-term loans against security. As recommended in the First Plan and by the Credit Inquiry Commission, they should be merged into a single institution which may be called the Agricultural Bank. This will result in a saving in overheads and will reduce administrative costs. The Bank should open branches in both the Provinces where co-operative societies are non-existent and where there are no immediate prospects of organising such societies. The Bank should supplement rather than supplant the co-operatives. The ultimate objective should be that the Bank concentrates on long-term finance and the co-operative societies meet the short and medium term credit requirements of the farmers. The Bank should rely for its working capital on share capital and deposits and should borrow from the State Bank only as a last resort. The working of the land mortgage banks in East Pakistan, and their relationship with the Agricultural Bank, will require careful study with a view to avoiding wasteful competition.

Rate of interest

182. Different rates of interest are charged by various credit institutions for loans extended to farmers. The Agricultural Bank and the Agricultural Development Finance Corporation charge an interest rate of 5 per cent and primary co-operative societies 8 to 9-1/2 per cent; *taccavi* loans are issued at 5-1/2 per cent in West Pakistan; in East Pakistan distress loans are issued at 6-1/2 per cent and other loans at even higher rates. The lower rate of interest charged by the Agricultural Bank and the Agricultural Development Finance Corporation, as compared with that of cooperative societies, is not likely to further the co-operative movement. There is need for rationalizing the rates of interest charged by the agricultural credit agencies. In principle, loans should be extended at a rate of interest which should enable the societies to cover the cost of administration, losses due to bad debts and other liabilities. As relevant information is lacking, it is not possible to suggest any specific interest rate. The question will require expert examination. In the meanwhile no ceiling should be fixed on the rate of interest that can be charged by the credit institutions.

National credit survey

183. The First Plan proposed a national credit survey on a sample basis to obtain reliable information about sources of credit, prevailing rates of interest, and credit requirements, present and prospective. Not much has been achieved in this respect, and data are still lacking about the credit needs of the country, the scale on, and sources from, which they are being met, the purposes for which credit is provided and the results attained. Such data are essential for determining the credit policies of the Government. It is proposed that a survey of the type recommended in the First Plan should now be made in order to obtain adequate and accurate data on all aspects of the problem.

Warehousing corporation

184. The extension of credit to farmers may not be fully effective without the provision of storage for their products. With adequate warehousing facilities a farmer may store his produce, obtain a receipt against the stored produce, and use it as a negotiable instrument. The First Plan proposed the establishment of a warehousing corporation as a subsidiary to the Agricultural Bank to plan, design, finance, and construct warehouses. The Credit Inquiry Commission made a similar recommendation, and has suggested that warehousing corporations should be statutory bodies established under central legislation. The recommendation of the First Plan is reiterated. The proposed corporation should build godowns, wherever necessary, giving first priority to areas served by co-operative marketing societies and the Agricultural Bank. In areas not served by co-operative societies or the Agricultural Bank, the warehousing corporation may have to operate independently.

Training

185. The principles and procedures of agricultural credit institutions differ considerably from those followed by commercial banks, and as such require specially trained staff. The shortage of suitably trained staff has in the past been a major cause of the slow growth of the co-operative and other credit agencies. The First Plan proposed the establishment of a co-operative college in each Province to train staff. The West Pakistan college and two regional schools are now in being ; the East Pakistan college is expected to be completed by 1962. The Agricultural Bank started a course in 1958 for training its officers and those of the Agricultural Development Finance Corporation in economics, principles of co-operation, statistics, banking, and accountancy in addition to practical training in agriculture, land survey, and settlement. The Agricultural Development Finance Corporation subsequently set up its own training institute to equip its field staff with basic knowledge of agriculture, economics, banking practices, and tenancy laws.

186. It is proposed that the training programme should be improved by strengthening and expanding existing institutions, and by the completion of the co-operative college in East Pakistan. These institutions will train management personnel, inspectors, sub-inspectors, accountants and other senior personnel for the credit institutions. The training programme of the Agricultural Development Finance Corporation and the Agricultural Bank should be co-ordinated and gradually extended to meet staff requirements at all levels.

Financial requirements

187. A provision of Rs. 200 million is made for the development of rural credit : East Pakistan, Rs. 70 million ; West Pakistan, Rs. 40 million ; Centre, Rs. 90 million. The allocations do not take account of recoveries to be realized, which will be reused for credit purposes.

Land reforms

188. Land tenure is the body of laws and customs which determine the varying rights of people and the state in the ownership, control, and use of land. The expression "land reforms", as used in this chapter, applies to all measures aimed at eliminating the undesirable features of the land tenure system. Land reforms include elimination of large concentrations of land ownership in a few hands, consolidation of uneconomically fragmented holdings, regulation of landlord-tenant relations, and provision of various supplementary services, such as credit and technical assistance, which have as their purpose the strengthening of the institutional structure of agriculture. Land held in large units by single and often absentee owners is rarely operated efficiently; too often, such land is identified with apathetic management, lack of economic incentives to the tenant cultivator, and general resistance to productive technology. Intelligent sub-division and redistribution of large holdings to the actual cultivators can provide the income opportunities necessary to stimulate production increases. At the other extreme, excessive fragmentation of land-holdings is destructive of operating efficiency. Similarly, the various laws and customs governing the sharing of costs and returns by landlords and tenants can promote or retard production, depending upon whether labour, management, and capital receive shares proportionate to their respective contributions to the enterprise. A system which tends to hold the cultivator close to the margin of subsistence, more or less regardless of the effort and skill expended by him, has been correctly called "the dead hand of feudalism." Rewards for production gains must flow to those who have earned them if there is to be a sustained incentive. Furthermore, only good husbandry and wise capital investment can be achieved in an atmosphere of secure expectations, either through the permanent tenure of ownership or by safeguards to protect the tenant against unwarranted eviction. The provision of suitable credit services is basic when land reforms involve the creation of new land-owners, both to liberate cultivators from the oppression of economic controls that often characterize private credit sources, and to assure them the means to support a higher level of productivity. Technical guidance also is seriously needed to raise the management capacity of new land-owners.

189. The indirect economic benefits of land reforms are equally important. To the extent that a broader distribution of land resources, in units of optimum size, is accomplished, a vigorous middle-income class is created. The existence of a substantial number of families in the middle-income category, in turn, is at once a stimulus and a stabilizing force to the market for goods and services provided by other sectors of the economy. In more than one country, far-reaching land reforms have set the stage for rapid industrial development. A natural consequence of the economic improvement that accompanies effective land reforms is healthier social and political conditions. Higher and more widely distributed incomes furnish the means and the desire for better education, health, and welfare standards. Equality of opportunity promotes confidence in the government that provides it, and is conducive to vigilant and enlightened citizenship.

190. As in many other Asian countries, the need has long been clear for reforming the agrarian structure to remove checks to higher agricultural production and efficiency, and to reduce social disparity. The pioneer legislation was the East Bengal Estate Acquisition and Tenancy Act of 1950, which was, however, fully implemented only in April 1956, when all the intermediary land-holding interests were acquired by the Government. In West Pakistan, the Muslim League Agrarian Reforms Committee in 1949 recommended various short-term and long-term measures for modifying the agrarian structure. In the former Punjab, a Tenancy Laws Enquiry Committee endorsed the short-term measures advocated by the Muslim League Agrarian Reforms Committee. The Sind Tenancy Laws Committee Report of 1945 was followed by the Hari Committee Report in 1948. The various Provincial Governments sought to apply partial land reforms; some were implemented but many others remained a dead letter. Generally, although various efforts were made towards land reform before 1955, little was achieved. Progress in the First Plan period and prospects for the Second are reviewed below. Because the systems of tenure and the related problems differ in each Province, they are discussed separately.

Land reforms in West Pakistan

191. It was noted in the First Plan that in West Pakistan there were large concentrations of estates in the hands of big landlords, many of whom were absentees with little interest in agriculture. In many cases security of tenancy was not assured, the tenants had very little bargaining power because of scarcity of land, and there was a vast unemployed and under-employed rural labour force. Holdings were usually small, and the situation was aggravated by continuous sub-division and fragmentation; while the quantity of land available for cultivation in the Province was insufficient, vast areas were left uncultivated by big landlords simply for lack of interest. The First Plan, therefore, made a series of proposals, chiefly: (i) the size of ownership and cultivation units should be limited; (ii) sub-division and fragmentation of holdings below an economic level should be prevented; (iii) a dynamic programme for the consolidation of fragmented holdings should be carried out; (iv) the laws relating to ownership and tenancy in various parts of West Pakistan should be unified; (v) *jagirs* should be abolished; and (vi) uncultivated culturable land should be brought under the plough.

192. No significant action was taken until October 1958, when the Government appointed the Land Reforms Commission to examine the problems relating to the ownership and tenancy of agricultural land, and to recommend suitable measures for ensuring social justice, security of tenure for the tenant and better production. On the basis of the report of the Commission, the Government announced its land reforms policy in January 1959, imposing a ceiling on holdings, forbidding partition of economic or subsistence holdings, abolishing *jagirs* and other intermediate interests, making consolidation of holdings compulsory, assuring security of tenure to tenants, and conferring ownership rights on certain types of existing tenants. The

Government soon after appointed a Land Commission to ensure the speedy implementation of land reforms. The Commission has collected the relevant information and declared provisional owners, after determining the areas along with the respective owners, whose lands are to be resumed and also the persons entitled to the resumed land. The preparation of compensation rolls, permanent sale to tenants, arrangements for the recovery of the price and the payment of interest on compensation to the land owners are in train.

193. *Ceilings on ownership.*—The most important single reform was the limitation of individual ownership to a maximum area of 500 acres of irrigated or 1,000 acres of non-irrigated land. Certain exemptions were made for the benefit of present owners, including : (i) an existing owner might retain in his possession land equivalent to 36,000 produce index units*, even if in terms of acres it exceeded 500 acres of irrigated land or 1,000 acres of unirrigated land; (ii) the owner might transfer to his heirs land equivalent to 18,000 produce index units, unless he had already done so between 14 August 1947 and 8 October 1958; (iii) the owner could retain 150 acres of orchards if in blocks of not less than 10 acres each, and entered in the records as such, at least since *rabi*, 1956-57 ; (iv) owners of existing stud and livestock farms were allowed to retain such additional areas as the Government considered necessary. The phasing and operations of the land reforms were designed to minimize the problems of transition from unlimited to more restricted ownership of individual holdings.

194. Compensation to the land owners was provided at a rate varying from Re. 1 to Rs. 5 per produce index unit, depending on the area of the land to be resumed, in fifty half-yearly equated instalments in transferable but non-negotiable bonds bearing interest at 4 per cent per annum on unpaid balance. The Government in turn would sell the land to the new owners at the rate of Rs. 8 per produce index unit payable in fifty half-yearly equated instalments, including an annual interest of 4 per cent on unpaid balance. The difference between the price realized and compensation paid would be used to meet the costs of the land reforms scheme. The rate of compensation was determined in the light of inflationary dangers, the financing capacity of the Government, the needs of both the expropriated landlords for ready cash, and the capacity of the new proprietors to pay for land.

195. As of June 1960, 2.3 million acres of land have been resumed by the Government, of which 1.6 million acres are uncultivated area, and the remaining 700 thousand acres are cultivated. Of the uncultivated land, 1.2 million acres are culturable waste land, while the remaining 400 thousand acres are not culturable. Of the cultivated area about 545 thousand acres were in the possession of tenants, about 128 thousand acres were cultivated by the owners, and about 27 thousand acres were under forests.

196. The relatively large area of the culturable waste land resumed by the Land Commission (over one million acres) is to be surveyed so that

*The produce index units generally represent the annual gross produce value of an acre of land, separately calculated according to the various classes of soil and other conditions.

arrangements may be made for bringing this area under the plough at the earliest possible date. A large area of culturable proprietary waste lands also remains uncultivated in the Province. Under the Punjab Land Utilization Act of 1954, land remaining uncultivated for four harvests could be taken over by the Government for a period of ten years and leased to tenants for cultivation. Similarly, in the former Province of Sind, land remaining uncultivated for five years could be taken over by the Government under the "Follow Rules" and leased out. Neither of these regulations was at all effectively enforced. As proposed by the Land Reforms Commission, a Land Utilization Ordinance was adopted in West Pakistan in August 1959. The ordinance provides that where land remains uncultivated for a period of two years or more, the owner should be given notice to bring it under cultivation within a reasonable period, to be fixed by the Land Commission; in the event of failure to comply with such directions, the land may be requisitioned by the Government for management and utilization on approved lines.

197. Some 128,000 acres which were under cultivation by the landlords have been leased by the Land Commission on tenders for one harvest only; a definite policy for the future has yet to be determined. In order to make the best use of the land resources, it will be necessary to devise a comprehensive programme of land use for various purposes, such as extension of the adjacent holdings of new and old owners, or transfer to former tenants of land which the landlords may retain for cultivation in place of surrendered land, or alienation to the landless.

198. *Abolition of jagirs**.—All *jagirs* which existed in West Pakistan before 7 February 1959 were abolished under the land reforms scheme, and transferred to the Government without compensation; such *jagirs* mainly existed in the former Province of Sind and the States of Bahawalpur and Baluchistan; almost all others had already been abolished. The total number of *jagirs* in the Province was over 800, of which 400 were in the former Province of Sind, 258 in Baluchistan, and 150 in Bahawalpur. As a result of abolition of these *jagirs*, some Rs. 3 million were added to the annual revenues of the Government, apart from the land that became available for redistribution to cultivators.

199. There are, however, some related aspects which need further consideration and timely action. For instance, the abolition of *jagirs* raises the question of identifying the rights of owners and cultivators in *jagirs* which remain to be surveyed. Similarly, the revenue records of the unsurveyed *jagirs*, the unsettled and unreported areas of Quetta and Kalat Divisions and Hazara and Mardan Districts, and the excluded areas of Dera Ghazi Khan, will have to be completed speedily in order to implement fully the land reforms in these areas. This work will require to be undertaken early in the Second Plan period.

*The *Jagir* literally means a gift or a grant, but is being commonly used for : (i) any grant of money payable out of land revenue assignment, or remission of land revenue made by a competent authority; or (ii) any estate in land created by the Government, which carried with it the right of collecting land revenue.

200. *Tenancy legislation and security of tenure.*—The Tenancy Acts of 1950, in the former Provinces of Sind, the Punjab and North-West Frontier aimed at producing greater security of tenure to the tenants, abolishing non-statutory charges levied on the tenants, and prescribing the ratio of apportionment of produce between the landlord and the tenant, and the incidence of taxation to be borne by each. Except, however, in the former North West Frontier Province the implementation of tenancy legislation did not proceed smoothly. In the former Punjab, it created tension between the landlords and the tenants, and in the former Sind the tenant remained ignorant of his legal rights, and too weak to assert them.

201. The First Plan proposed that, with the merger of the various Provinces and States into a single administrative unit, the various tenancy laws in force in West Pakistan should be consolidated. The land reforms scheme of 1959 provided that the existing rights and duties of landlord and tenant should continue, subject to the provision that, pending any resumption of land under the scheme, no tenant should be ejected unless it was established in a Revenue Court that he had misused the land, or failed to pay the rent or to cultivate it if the rent was payable in kind, or sublet the tenancy. The Land Commission is now formulating uniform regulations to provide adequate security to the tenants. It is intended that the regulations to be framed should not only extend sufficient security to the tenants so as to induce them to invest capital in the land, but should also be so designed as to improve relations between landlords and tenants and thereby help materially in increasing agricultural output. The regulations will endeavour to lay down clearly the rights and responsibilities of tenants and landowners, to be explained to both parties through organized educational campaigns.

202. *Cultivation by owners.*—Under the 1959 land reforms scheme the land owners, even if they wish to cultivate the land themselves, will not be entitled to eject the tenants. This situation may create difficulties for owners intending to settle on land after retirement from civil or military service or other non-agricultural occupations and may discourage educated persons from settling in the rural areas, and so deprive these areas of more enlightened leadership. This question has already been considered by the Land Commission, which has recommended that Army personnel should, on release from service, be free to eject tenants, after proper notice, in order to be able to cultivate the land themselves. It may be necessary to review the issue as applying to non-military land owners under specific conditions, and for defined size of cultivation units; care will have to be taken to ensure that there is no unnecessary and unfair ejection of tenants.

203. *Size of holdings.*—Small and fragmented land holdings reduce the productivity of agricultural land. Neither human effort nor animal or material inputs can be used efficiently, nor can new techniques be easily adopted. Therefore, the question of size of holdings must be considered in terms of both consolidation of existing fragmentation, and prevention of further sub-division into uneconomic units.

204. The First Plan stated that the efforts made by the Government during a quarter of a century to consolidate holdings had not been very

effective ; it proposed that the responsibility for the consolidation of holdings should be entrusted to a single department, created for the purpose in the Board of Revenue, which should take over the work from the Departments of Revenue and Co-operation. This was not done, and the scale of consolidation remained small ; the additional area consolidated by March 1959 was about 500 thousand acres, bringing the total to 2.3 million acres, against 24 million acres of cultivated land in the former Punjab and North-West Frontier Provinces. The Land Commission is now considering the compulsory enforcement of consolidation of holdings within a period of five years, through a department to be established for the purpose. The Commission's recommendations should be finalized and implemented as soon as possible. This can be done only with the fullest public co-operation. The institutions of Basic Democracies, the Village AID organization, and other agencies should be extensively used for disseminating widely the advantages of consolidation. A gross sum of Rs. 83 million has been provided in the Plan for this purpose. After deducting recoveries, estimated at about Rs. 64 million, the net expenditure will be Rs. 19 million.

205. *Sub-division of holdings.*—Under the Muslim law of inheritance the heirs are entitled to receive a fixed share of the estate, regardless of its size or value. The First Plan recognized that fragmentation had certain absolute physical limits ; and in the larger interests of the nation, and on the analogy of the action already taken in East Pakistan and in other Muslim countries, the Plan advocated the public acquisition of uneconomic inherited share of an estate, to be added to the holdings of other owners so as to attain at least the minimum economic unit. The size of the economic holding was not, however, specified in the Plan. The Land Reforms Commission has defined both a "subsistence" and an "economic" holding ; the former comprises an area of 12-1/2 to 16 acres, and the latter 50 to 64 acres, depending upon its location. In effect, therefore, the right of alienating land and the physical partition of subsistence and economic holdings have been restricted in cases where the effect of such alienation or partition would be to sub-divide the holding into uneconomic units.

206. In practice, the Land Commission has found this regulation too drastic, and even obstructive to consolidation of holdings. Some modifications have been made by the Land Commission : small owners whose holdings are below subsistence level can now alienate land, without restriction, to other owners of land in their own villages. It is doubtful whether even with such modifications, the scheme can be made to work smoothly, equitably, and with a net benefit to the interest of the community. Under the present provisions, two situations can arise : (i) if the impartible unit is managed by one of the co-inheritors, it will mean the displacement of other co-inheritors who will lose their livelihood, or (ii) despite the fact that in the revenue records the entire impartible area will appear as one unit, the co-sharers may divide it among themselves for cultivation purposes, which will tend to defeat the very object for which the impartibility of holdings was introduced. The present provisions will have to be so amended as to ensure that as few cultivators as possible are ejected from the land, and that agricultural productivity does not suffer.

Land reforms in East Pakistan

207. The East Bengal Estate Acquisition and Tenancy Act, 1950, provided for the acquisition of all rent-receiving interests between the actual cultivator and the State. For *Khas* possession of land (*Khud Kasht* or owner-cultivated) the Act, fixed a ceiling on ownership at either 100 standard *bighas* (about 33 acres) or 10 *bighas* for each member of the family, whichever was greater, plus an additional 10 *bighas* for the homestead. This ceiling was not, however, applicable to mechanized farms, large dairy farms, and tea or sugarcane plantations. The Act also provided for the acquisition of all non-retainable classes of *Khas* lands, such as *hats*, bazars, forests, ferries, and fisheries, belonging to rent-receivers as well as non-rent-receivers. The Act further gave the tenants full occupancy rights with the right of transfer to *bona fide* cultivators, and forbade subletting. Although implementation of the Act started in 1951, progress was extremely slow. The First Plan emphasized the need for speed, recognizing the time and labour involved in bringing up-to-date, and in certain cases even preparing anew, records of rights; in determining assessment rolls for compensation; and in resumption of *Khas* lands. Little happened until April 1956, when the East Pakistan Government acquired all intermediary rights. Furthermore, excess *Khas* lands within the retainable classes were acquired in the district of Bakerganj; so also were the Sunderban portion of the Khulna district, and a few other estates. The total area acquired was about 300,000 acres, half of which is either covered by forests or is marshy, sandy, or otherwise uncultivable. Acquisition of the remaining *Khas* lands still awaits information from the former rent-receivers about the land they propose to retain. The non-retainable classes of *Khas* lands belonging to non-rent-receivers (except in the district of Bakerganj and the Sunderbans portion of Khulna district) remain to be acquired. The revision of records of rights has been completed and is now being attested. The final publication of records of right is expected to be completed by the middle of 1961, and of the compensation assessment rolls by the middle of 1962, when the Government will become legally responsible for payment of compensation.

208. *Land Revenue Commission*.—In December, 1958, the East Pakistan Government, realizing the administrative and other difficulties facing the speedy implementation of the scheme, appointed a Land Revenue Commission. The Commission was asked to examine, *inter alia*, the methods of assessment and payment of compensation, the procedures for the preparation of correct record of rights, the state of collection of rents and cesses, and the administration of the Revenue Department. The Commission reported in July 1959; its main recommendations relate to increasing the ceiling limit for possession of *Khas* land from 100 to 300 *bighas* (about 100 acres) per family generally, and 400 *bighas* in special cases; impartibility of ownership units below three acres to prevent fragmentation; adjustments in the mode of payment of compensation; reorganization of the revenue administration; and the training of officers and staff to be appointed at various levels to implement the recommendations.

209. The Land Revenue Commission supported a higher ceiling on ownership because it felt that a lower ceiling will not substantially increase the number of tenants who will be able to obtain land. By way of comparison the Commission referred to the ceilings fixed by the land reforms scheme of West Pakistan. The conditions in the two Provinces vary considerably, and careful consideration will have to be given, before modifying any provision of the Act of 1950, to all the relevant local factors such as climate, soil and social institutions. Similarly, before endorsing the recommendation of the Land Revenue Commission that holdings below three acres should be made impartible, the relevant economic and social factors will have to be given due consideration. The Act of 1950 prohibited the sub-division of holdings after the land revenue payable is reduced to less than a Rupee *per annum*, which in terms of acreage may mean anything from 1/4 of an acre to an acre.

210. The Land Revenue Commission also recommended that *khas* lands hitherto acquired below the ceiling recommended should be returned to the original owners, or if they are already settled, should be the subject of compensation in cash. It is possible that returning lands already acquired or paying compensation in cash if they have been settled might shake the faith of the tenants and the *khas* land owners, and prejudice agricultural production. For the rapid implementation of the scheme, the Land Revenue Commission recommended various steps to accelerate the process of assessment and payment of compensation, and also suggested some modification in the methods of payment of compensation; for example, all persons who are to receive a total compensation not exceeding Rs. 1,000 should be paid in cash in one instalment, while bonds should be issued to those who are to get compensation above Rs. 1,000. Acceptance of this recommendation of the Land Revenue Commission would involve payment of a very large amount of compensation in cash in one instalment soon after the publication of the compensation assessment rolls. A provision of Rs. 250 million has been made in the non-development budget for the payment of compensation during the Plan period.

211. The Land Revenue Commission recommended that for the effective implementation of the scheme, the Board of Revenue should be strengthened and made autonomous. The experience of the Land Commission of West Pakistan, which has proved an effective instrument for the implementation of the land reforms scheme, may provide a sound model for East Pakistan. As recommended by the Land Revenue Commission, a Revenue Training Academy will be established in the Province, in addition to facilities for training *tehsildars*, and the subordinate staff of the Revenue Department.

212. Realizing the importance of bringing the revenue records up-to-date, the Land Revenue Commission recommended that a thorough revision of the records-of-rights should be made, and rents rationalized by assessing them on produce of the land. These revisions should be made after all the formalities of acquisitions under the Act of 1950 have been completed, and the management of land and collection of rent have been stabilized; meanwhile data needed for the revisions should be collected. Effective

safeguards should be provided to ensure that the collection of data does not delay the implementation of the land reforms scheme. The East Pakistan Government appointed a Land Revenue Rules Revision Commission in August, 1959, to examine various land and land revenue laws now in force in the Province, in the light of changed circumstances brought about by the operation of the Act of 1950. Its report is awaited.

213. *Rights of ownership*.—The land reforms scheme, as it stands now, can with advantage be modified in certain respects. According to the Act of 1950, the cultivators have been granted permanent transferable and alienable tenancy rights. The land acquired has, however, been nationalized. The First Plan recommended that, in accordance with the accepted social objectives, the cultivators should be endowed with full rights of ownership in their land. This recommendation has not been adopted on the argument that if the tenants become the owners of land, the income of the Government from land revenue will be curtailed substantially, because the new peasant proprietors will then pay only land revenue which will be barely 12 to 15 per cent of the rent now paid; the only possible increase in Government income will come from the payment of *salami* (the price of land) for ownership. This argument is justified only on the assumption that the upward revision of land revenue is not possible. In fact, however, the Provincial Revenue Department is already contemplating the rationalization of land revenue; and it would be reasonable to expect that this will result in increased revenue to the Government, enabling it to build up its own funds for meeting the demand of compensation. The proposal made in the First Plan for conferring full rights of ownership of land on the cultivators is, therefore, repeated.

214. *Share-croppers (bargadars)*.—The First Plan noted that share croppers (*bargadars*) in East Pakistan were not recognized as tenants, and that the existing laws did not afford any protection to them. Consequently it proposed that the East Pakistan Government should consider the question of extending legal protection to them. In order to put this proposal into effect, the East Pakistan Government will need to collect the necessary information about the *bargadars*, their number and legal rights and the apportionment of produce between the land owner and the share-cropper. On the basis of the information thus collected, legislation to protect the rights of *bargadars* should be enacted as early as possible. The East Pakistan *Bagadars' Bill*, aimed at regulating the rights *inter se* of *bargadars* and owners of land, was introduced in the East Pakistan Legislature in 1957, but was not passed.

215. *Consolidation of holdings*.—Once the implementation of the land reforms scheme gathers momentum, consolidation of holdings in certain areas should be undertaken as provided in the Act of 1950. There are, however, difficulties in applying the scheme immediately. The stage for such operations will only be reached after the various complications arising out of the Estate Acquisition Act have been cleared with the final publication of the compensation assessment rolls, and after the revision of incidence of

holdings of *railyats*, the realization of rents and the revision and maintenance of records of rights have been enforced throughout the Province. The Provincial Government considers that the fragmentation of holdings is not a serious problem in East Pakistan. However that may be, it is true that this problem cannot be wholly remedied at present because of the combined effects of heavy pressure of population on land, and of the law of inheritance.

TABLE 16

*Public sector development expenditure in agriculture,
1960-61 to 1964-65*

(Million Rupees)

Sub-sector	East Pakistan	West Pakistan	Centre	Total
Manures and fertilizers (a)	161	157	—	318
Plant protection (a)	10	13	233 (b)	256
Seed multiplication and distribution (a)	47	67	—	114
Mechanization (a)	32	31	—	63
Soils	(c)	—	9	9
Agricultural economics and statistics	2	2	6	10
Agricultural marketing	1	(c)	3	4
Foodgrain storage	73	32	91	196
Agricultural extension	13	8	(c)	21
Agricultural research	7	17	—	24
Agricultural education	16	24	—	40
Colonization (a)	20	130	—	150
Animal husbandry (a)	40	62	22	124
Range management	—	12	—	12
Forestry (a)	52	67	15	134
Soil conservation	—	16	—	16
Fisheries (a)	14	4	28	46
Under-developed areas	2	20	16	38
Land reforms (a)	57	19	—	76
Central Jute Committee	—	—	4	4
Central Cotton Committee	—	—	2	2
Food and Agriculture Council	—	—	3	3
Total	547	681	432	1,660(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 (page 40, Table 10).

CHAPTER 8

WATER AND POWER

Development problems and possibilities

WIDELY different problems and possibilities of water and power development are presented by the three principal hydrological regions into which the country is naturally divided. These regions are : (i) the humid region of East Pakistan; (ii) the area (including the Frontier Regions) drained by the river Indus and its tributaries, and most of the adjoining closed basin tracts depending on the Indus waters in West Pakistan; and (iii) the area drained by the coastal tributaries and the desert streams, comprising the Karachi area, most of the Quetta and Kalat Divisions, and the adjoining tracts.

2. *East Pakistan*.—Most of East Pakistan is a low land plain built mainly by the delta-forming activity of the Ganges, the Brahmaputra, and the Meghna, and is covered with countless swamps. It is tropical and humid, and has heavy rainfall, which is highly seasonal. Average annual rainfall is about 76 inches, with extremes of from about 53 inches in Rajshahi district to about 226 inches in Sylhet district; 85 per cent of the rainfall occurs during the five months May to September—the monsoon period. Except for the eastern districts, which are not subject to flooding, the Province comprises flood plains and delta of the three rivers. The country slopes gently towards the sea and most of the area is less than 50 feet above sea level. The land to the west of the Brahmaputra is relatively high, but in the east falls away into a depression—the *beel* and *haor* areas—in the districts of Mymensingh and Sylhet. The soil is very fertile and the land is largely cultivated. Topography and precipitation have determined the agricultural pattern. In the highlands of Tippera, Chittagong, and Chittagong Hill Tracts, not subject to flooding, jute or paddy is grown only in the rainy season. During the dry season a small area is cropped under *rabi* crops, such as pulses. Failure of the monsoon occasionally results in famine conditions over vast areas. Irrigation can insure against drought and make possible double and even triple cropping.

3. The flood plains of the rivers remain under water during the high floods, and are not available for cultivation at that time. Paddy is, however, grown when the water recedes. But if, as frequently happens, the flood is excessive or occurs at an unusual time, or does not recede sufficiently at the time of transplantation of paddy, crop failure results. Flood regulation, irrigation by gravity and surface pumping can greatly alleviate this situation. The major portion of the *haor* areas in the Sylhet and Mymensingh districts remains under water throughout the monsoon season and is dry during winter. *Boro* (winter) paddy is grown in areas that retain moisture from the monsoon flooding. Such areas, however, form a very small portion of the total. Pump-irrigation offers considerable opportunity for developing

these areas, where at present the main occupation is fishing. Large tracts of *beel* areas in Faridpur, Khulna, Tippera, Sylhet, Mymensingh, Rajshahi, Pabna, Bogra and some other districts, remain under water for most of the year. These areas can be drained and brought under cultivation. With protective embankments and irrigation, the coastal areas, which are subject to intrusion of saline sea water, can support intensified and diversified cropping, which at present is mostly paddy.

4. The total area of the Province is about 35.4 million acres of which 24.2 million acres are cultivable. Of this area 22.2 million acres are cultivated and about 21 million acres sown in an average year. Only 600,000 acres are irrigated; the remaining 97 per cent is dependent on rain. About 7 million acres are double-cropped. Adequate information is not available to determine an ultimate irrigation target, but it is estimated that in the long run the cultivated land could be increased to 26 million acres, with nearly 24 million acres sown in an average year. About 13 million acres could be irrigated by extensive drainage, construction of diversion works and canals, and pumping of surface and sub-surface water, mostly to supplement rainfall during the dry winter season. Extensive investigations are under way by the East Pakistan Water and Power Development Authority to determine the water potential of the Province. The annual flow of the rivers is estimated at 925 million acre-feet, most of which is unregulated flood water during the monsoon season. The possibilities of regulation through storage within the Province are limited to the Chittagong Hill Tracts.

5. Limited possibilities of regulation of water resources restrict the generation of hydro-electric power to about one million kilowatts. Of this power potential, 120,000 kw are being developed on the Karnafuli river; investigations are in hand to determine future possibilities. Ultimately it may be possible to develop tidal power. In the meanwhile the region will have to depend greatly on fuel-electricity, which might be generated by the natural gas at Sylhet, the peat reserves of the Province, or wood fuel from the Sunderbans or the forests of the Chittagong Hill Tracts. To electrify the rural areas, extensive transmission and distribution systems are needed to make power generally available to agriculture, industry, and other consumers.

6. The long-range development programme of this region may be summarized as follows :

- (i) Regulation of river flows to reduce flood damage, improve drainage, and to free agriculture from dependence on variable seasonal rainfall.
- (ii) Protection of the long belt of tidal lands against intrusion of sea water, and its development through improved irrigation and drainage.
- (iii) Draining of wet *haor* areas after the monsoon to enhance agricultural production, and improve health conditions.

(iv) Determination of the ground water potential and use of ground and surface waters.

7. *The Indus Basin.*—Rainfall over most of the region comprising the Indus basin—the cradle of civilization of the Indo-Pakistan sub-continent—is unevenly distributed and inadequate to meet the full needs of the crops. The period of maximum rainfall coincides with the hottest months of the year, July to September. Temperatures and rainfall exhibit considerable fluctuations. Except for the sub-montane areas where the rainfall is adequate in some years for crop production, the Indus Basin receives less than 15 inches of rainfall a year, 30 per cent of the area receiving less than 10 inches, and 16 per cent less than 5 inches. The rivers of the Indus system are a vital source of irrigation water supply. These rivers have at the rim stations recorded maximum, minimum, and mean annual flows over a period of 25 years (1921-22 to 1945-46) of 213·6, 138·9, and 168·4 million acre-feet respectively. The corresponding volumes of the three western rivers only (the Indus, the Jhelum, and the Chenab) are 173·5, 102·8, and 135·5 million acre-feet. Inflows from the streams below the rim stations have not been regularly measured and, though not large, could be used for local development. Up to 1959, about 72 million acre-feet, excluding 20 to 40 million acre-feet of annual river losses, are estimated to have been utilized for irrigation. On the completion of schemes in progress, an additional quantity of 26 million acre-feet will be used. The total represents about 71 per cent of the average flow of the three western rivers. Additional supplies of regulated water can be made available through storage. How much additional quantity can be developed depends upon availability of suitable storage sites, which is under investigation. Basin-wide investigations have also been initiated to determine the potential and use of the ground water resources. In the Frontier Regions, no systematic investigations have so far been carried out. There is need for undertaking studies of availability, quality and quantity of ground waters and the suitability of land for agricultural production.

8. Out of a total area of 116 million acres only 40 million acres are cultivated, and about 30 million acres are sown in an average year. About 23 million acres approximately 75 per cent of the area sown in an average year are irrigated. Some 3 million acres are double-cropped. Unfortunately, waterlogging and alinity have assumed serious proportions in several parts of this region, and arable lands have been turning into marshes and salt lands. Most of the irrigated lands need drainage and supplementary water to maintain and increase agricultural production. There are sites on the main rivers and tributaries in the Indus valley where potential power heads are high, water supply is adequate, and good storage possibilities exist to generate several million kilowatts. Preliminary studies indicate that the power potential is of the order of 10 million kw, of which 6 million kw are on the Indus. Only about 200,000 kw, or 2 per cent of the total potential, have yet been developed. Detailed investigations are required to determine the desirable sites and their potential. The region has also large quantities

of coal and reserves of natural gas. The proved reserves of coal stand at 165 million tons, and those of natural gas about 8 trillion cubic feet, approximately equivalent in heating value to 300 million tons of coal. There are limited resources of oil and fuel wood. Thermal power generation will be needed to supplement seasonal power from hydro-electric stations. The possibility of using solar energy and tidal power is not ruled out. To secure best results, the hydro-electric and steam-generated power will need to be carefully integrated with existing and future power systems.

9. The long-range development situation of this region may be summarized as follows:

- (i) Useable unregulated flow supplies are already appropriated and crop yields are low, partly because of low and irrational applications of water, and partly because of salinity and waterlogging. Possible replacement even of historical uses from the eastern rivers will require construction of storage. Storage will also be needed for providing regulated supplementary supplies for the existing projects and for future development. This will also make available cheap hydro-electricity.
- (ii) Waterlogging, salinity and alkalinity exist in all irrigated areas in varying degree, and are continuing. Alkalinity and salinization of land will be aggravated with repeated use of pumped and drained water unless corrective measures are adopted. Drainage and efficient use of water and land are necessary.
- (iii) In many cases, revamping of canals to improve and rationalize water applications is needed. Remodelling will also be necessary when silt-free water is carried by them.
- (iv) Depletion of river flows will pose problems of river channel deterioration with attendant accentuation of flood damage and drainage congestion, and of sea water encroachment on the Indus delta, with serious consequences to agriculture, buildings, and health. The basin aquifers will be greatly affected by depletions. River channel rectification and flushing of the rivers will be needed.
- (v) Electrification needs to be pushed as rapidly and on as large a scale as is feasible to serve and promote industry, to pump water for the expansion of agriculture, and to meet domestic and other needs.

10. *Coastal and Desert Streams region.*—This region is coterminous with the former Baluchistan in West Pakistan, is arid, and the lands, though abundantly fertile, remain mostly uncultivated and are sparsely populated because of shortage of water. Of a total area of 82.4 million acres about 800,000 acres are sown in an average year. Approximately half of this is irrigated. The dependable flow in the streams is too small to support

expanded agriculture, and the infrequent storm flows are heavy and of short duration, making the regulation of the scanty water supply for use through storage difficult and expensive. As in the Frontier Regions, there is a shortage of hydrological data and surveys needed for systematic development. In particular, detailed information is lacking on the availability and distribution of water in the region.

11. The Quetta Division has negligible hydro-electric potential, but possesses coal which can be used to generate electricity. The Kalat Division has abundant natural gas at Sui. The remote areas of Mekran have not been surveyed. The Karachi area gets its water from subterranean storage, which has to be greatly supplemented by a long supply canal and conduit from the Indus River. Sui gas is piped to Karachi to serve industrial and domestic purposes.

Progress in the First Plan period

12. *Water.*—In 1955 the irrigated area in the country was 22.7 million acres—about 37 per cent of the total cultivated area of 61 million acres. By 1960 the irrigated area had reached 24 million acres—an increase of 1.3 million acres. Areas improved through drainage, flood regulation, and regulated supplies showed an increase of 2.57 million acres during the same period. Comparison of expectations and achievements in the First Plan is given in Table 1.

TABLE 1
Irrigation programme and results, 1955—60

Region	Programme		Results	
	New	Improved	New	Improved
East Pakistan	100	1,819	58	562
West Pakistan:				
Indus Basin and Frontier Regions	1,453	3,544	1,000	1,998
Coastal and desert streams regions	118	48	24	10
Total	1,671	5,411	1,082	2,570

13. Progress in reclamation of saline soils and drainage of waterlogged areas during the First Plan period was limited. Against the target of reclaiming 350,000 acres and lowering the water table in 150,000 acres, some 170,000 acres were partially reclaimed, and the water table depressed in a small area only. The First Plan provided for the construction of about 1,500 tubewells; actually 1,000 were sunk, but were not put in operation, primarily because of lack of electric power.

14. *Power.*—In 1955, installed generating capacity was 342,400 kw; of this 200,400 kw were in public utilities (four hydro-electric power plants and about 90 thermal stations) and 142,000 kw in industrial establishments. By 1960, estimated installed capacity was 906,000 kw; of this 654,000 kw were in public utilities, and 252,000 kw in industrial establishments. Table 2 shows the growth, targets and achievements in installed capacity in the three regions.

TABLE 2

Installed power capacity, estimated growth, targets and achievements, 1955—60
(Thousand kilowatts)

Region	1955 (a)		1960			
	Public utilities	Industrial establishments	Targets		Achievements (a)	
			Public utilities	Industrial establishments	Public utilities	Industrial establishments
East Pakistan ..	32.2	42.0	190.5	25.0	103.2	72.0
West Pakistan:						
Indus Basin and Frontier Regions	132.8	63.0	547.4	86.0	490.3	122.0
Coastal and desert streams region ..	35.4	37.0			60.0	58.0
Total ..	200.4	142.0	737.9	111.0	653.5	252.0

(a) Source : Chief Engineering Adviser's Office.

Installed generating capacity nearly trebled between 1955 and 1960, while *per capita* electricity consumption rose from about 10 units in 1955 to about 30 units in 1960. In East Pakistan, the increase in public supply capacity was mainly due to the steam plants at Sidhirganj (30,000 kw), Goalpara (16,600 kw), and Bheramara (8,500 kw), and diesel plants at Sidhirganj, Chittagong and Goalpara (15,900 kw). The increase in capacity owned by industry came from the Khulna newsprint factory (16,000 kw), and from such industries as sugar, jute, and textile mills (14,000 kw). In West Pakistan the increase in installed capacity in public utilities was mainly due to the commissioning of the Warsak hydro-electric scheme (160,000 kw), canal

hydels (28,000 kw), and the steam stations at Multan, Lyallpur, Montgomery, and Karachi (192,500 kw). The increase in industrial establishments was from the fertilizer factory and the Maple Leaf cement factory, Daudkhel (30,000 kw), the Zeal-Pak cement factory, Hyderabad (7,000 kw), and extensions in the sugar, textile, and other industries (43,000 kw).

15. During the First Plan period a sum of Rs. 1,770 million, against an allocation of Rs. 2,697 million, was spent on water and power development schemes in the public sector, as shown in Table 3.

TABLE 3

*Planned and actual expenditure on water and power development,
1955-56 to 1959-60*

(Million Rupees)

Region	Planned	Estimated actual
East Pakistan	928.0	350.0
West Pakistan:		
Indus Basin and Frontier Regions	1,714.0	1,415.0
Coastal and desert streams region	55.0	5.0
Total ..	2,697.0	1,770.0

Major First Plan projects

16. *East Pakistan.*—The Karnafuli hydel scheme in East Pakistan was planned to develop one of the very few water storage sites in the Province. It was designed to produce ultimately 120,000 kw of hydro-electric power, of which initially 80,000 kw would be installed ; to improve navigation to the port of Chittagong and upstream ; and to abate flood damage through regulation of flood flow in the Karnafuli river. It was scheduled for completion in 1960, at an estimated cost of Rs. 250 million. It is now expected to come into operation in 1961, and to cost Rs. 428 million—an increase of about 71 per cent over the original estimate.

17. The Ganges-Kobadak scheme envisaged pumping the Ganges waters near the Hardinge Bridge into canals for irrigating lands which could then be used for double and even triple cropping. The deteriorating Kobadak river was to be improved as a trunk drain, to be fed by a system of drainage channels, interlacing the irrigated area to regulate the water on the lands and reduce somewhat the effects of destructive floods. The canal banks were to accommodate surface transport, and the main canals and drains to provide for limited water transport. The scheme was designed to develop areas in the Kushtia, Jessore, and Khulna districts. The entire

Ganges-Kobadak scheme will irrigate about 2 million acres when completed. The Kushtia unit, which will irrigate 350,000 acres, is now well under way; the main canals have been excavated, and a field agricultural station has been established to obtain information on soil, plant and water relationships, and to educate the farmers in irrigation techniques. The power plant at Bheramara was completed in 1958, but due to various causes the installation of large-sized pumps was held up, with the result that the progress of the scheme was slowed down. In July 1959 an auxiliary scheme for installation of medium-sized pumps was sanctioned for completion towards the end of 1960, in order to accelerate the progress of the main scheme, and to supplement the capacity of the large pumps to be installed later.

18. The Teesta sub-project, comprising a diversion dam and canals, to serve as a pilot scheme, was abandoned as inadequate after an expenditure of Rs. 3.4 million had been incurred. Investigations have been taken in hand to determine the feasibility of constructing a barrage on the Teesta river. The new project, now under preparation, is designed to irrigate nearly 1.8 million acres at a cost of Rs. 377 million, and is scheduled for completion in 1967.

19. Only 5 out of the 50 experimental tubewells proposed in the First Plan were sunk. These wells have, however, furnished information upon which to base a larger programme. Most of the drainage schemes are far behind schedule, and lack of investigations and data has made it necessary to curtail their scope.

20. *West Pakistan.*—The multipurpose Warsak project on the Kabul river was designed to develop 160,000 kw at peak load, with necessary facilities for the installation of two additional units, each of 40,000 kw, if required. The project also provides, through two high level canals and high-lift pumps, for irrigation of about 120,000 acres, lying partly in the tribal areas. It is scheduled for completion in 1960 at an estimated cost of Rs. 293 million. The irrigation works are, however, behind schedule by nearly a year.

21. The Kurram Garhi scheme, originally expected to cost Rs. 43.4 million, is now estimated to cost Rs. 68.4 million. Of the expected 4,000 kw of power only 2,200 kw is being developed, and delays in settling the water rights have postponed the irrigation benefits.

22. The Taunsa, Gudu, and Kotri barrage projects, the three major irrigation works undertaken in West Pakistan since Independence, were planned to assure adequate and timely water supplies to the vast network of inundation canals taking off from the Indus, and to bring under irrigation a total area of 6.5 million acres. The Taunsa project has made satisfactory progress. In the Kotri project the water distribution and colonization work has been rather slow, but is now being speeded up. The Gudu project construction is behind schedule.

23. The Marala-Ravi link (Chenab to Ravi), and the Balloki-Suleimanki link (Ravi to Sutlej), connecting the three rivers, are designed to make up the chronic shortages in the Sutlej Valley canals. The chain called the Bambanwala-Ravi-Bedian-Dipalpur link has been constructed to simplify delivery problems on the various channels in the Central Bari Doab system. Recurrent flood damage and inadequacy of completed works to cope with storm flows have made it necessary to undertake additions and alterations before the links can be fully utilized.

24. Progress in tubewells, drainage, and reclamation has been disappointing. Since the inception of the tubewell programme as a measure to control waterlogging, 1,351 tubewells have been sunk under the Rasuj scheme. Of an allocation of Rs. 137 million, only Rs. 60·7 million was spent.

25. The Bolan Dam project contemplated the construction of an earth dam and a canal distribution system to use the flood flows of the river Bolan in the Kalat division, and to irrigate an area of 24,000 acres. The dam was completed in 1958 at a cost of Rs. 3·4 million, but the water supply is not adequate to irrigate fully the area covered by the scheme.

26. An irrigation project on the Hub river, at the site of the old Bund Murad Khan, was designed to irrigate 4,000 acres of land around Karachi by sealing the bund and pumping the stored supplies. A sum of Rs. 7·6 million was spent on the scheme without commensurate benefits, because of inadequacy of water supplies. The project has been abandoned. Detailed investigations at a cost of Rs. 2·2 million have been authorised to determine the water potential of the Hub river and the possibilities of its exploitation.

Summary of First Plan experience

27. During the First Plan period, while there has been a substantial measure of success in the implementation of multipurpose projects, several schemes have not been executed speedily; progress in flood abatement and waterlogging and salinity control has been disappointingly slow. Experience during this period underlines the prime importance of careful preparation of projects, of sound appraisal of real costs and benefits, and of careful assignment of priorities and determination of the pattern of investment. Such comprehensive preparatory work was in many cases lacking in the past, because of absence of detailed surveys, investigations, and statistical data. Impatience and enthusiasm took the place of prudence and engineering judgment, leading to waste of scarce resources—finance, strategic materials, and technical manpower. In some instances costs were grossly underestimated and returns overestimated. In a number of cases, coordination between the various phases of the same project was indifferently effected.

28. The First Plan recommended the creation in each Province of a statutory semi-autonomous body for water and power development under the general control of the Government, but enjoying in full measure the flexibility and initiative of private enterprise. A Water and Power Development

Authority was created in West Pakistan in 1958, and in East Pakistan in 1959. The establishment of these authorities, together with the simplification of sanctioning procedures, improvement of budgeting, and the creation of a Projects Division to watch progress and identify bottlenecks, should greatly help to improve performance in the Second Plan period. International assistance in the form of technical aid and training can be secured, and the Second Plan provides for increased use of the services of specialists to supply the necessary guidance and technical know-how. This should considerably help to remedy the present shortage of technical manpower. The quality and coverage of data are being improved. In future it should be possible to make better estimates of construction and development costs, and of financial returns. Past shortcomings and unfulfilled expectations do not, therefore, imply that a comprehensive programme of water and power development in the Second Plan period will not be realisable.

Second Plan programme

29. The water and power development programme in the Second Plan covers a number of large and expensive projects, as well as numerous smaller schemes. Many of them have not, however, been subjected to full technical and economic appraisal ; and it may, therefore, be necessary to change the composition of the programme in the light of further, more precise information. The objectives of the development programme, which should be regarded as a unity, remain broadly the same as in the First Plan, namely :

- (i) to raise the productivity of existing agricultural lands through increased and rational applications of water, and the control of salinity and waterlogging ;
- (ii) to increase farm acreage through irrigation, drainage, and flood regulation ; and
- (iii) to provide electric power cheaply and abundantly in order to accelerate and strengthen agricultural and industrial development.

30. During the Plan period, a number of major schemes of irrigation and protection of extensive areas will be completed. Large tracts of land will benefit from a multiplicity of small drainage, flood regulation, tubewell, and pumping schemes. It is estimated that in the final year of the Plan period, an additional area of 2.4 million acres will be irrigated for the first time, and an area of 7.1 million acres will be improved through depression of water table, salinity control and an assured water supply. The gross installed capacity of electric power will be increased from 905,500 kw to 1,414,000 kw and the energy generated will increase from 3.20 billion units to 5.63 billion units, raising the *per capita* consumption of electricity from 30 to 50 units.